STWE REVIEW

APRIL 1958

Volume 5 Number 2

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by Ethaline Cortelyou 5

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by D. R. McDowell 10

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MASS PRODUCTION OF THE TECHNICAL REPORT
by M. D. Warnock & D. H. Meldrum 19

published by the
SOCIETY OF TECHNICAL WRITERS AND EDITORS

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MEMO TO MEMBERS AND SUBSCRIBERS: In the preceding years the Society of Technical Writers published a journal called TECHNICAL WRITING REVIEW, and the Association of Technical Writers and Editors published the TWE JOURNAL. These two organizations are now merged as the Society of Technical Writers and Editors. In October 1956 THE TECHNICAL WRITER was first published as a joint editorial effort of the two journals' staffs. The STWE REVIEW now makes its appearance as the only journal of the merged societies.

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STWE REVIEW

APRIL 1958
VOL. 5 NO. 2 JOURNAL OF THE SOCIETY OF TECHNICAL WRITERS AND EDITORS

EDITOR
Allan H. Lytel
General Electric Company

ASSISTANT EDITOR
Richard A. Hanousek
General Electric Company

PUBLICATIONS COMMITTEE CHAIRMAN
Thomas A. Grogan
McGraw-Hill Book Company

ADVERTISING
Kenneth G. Tong
High Voltage Engineering Corp.
Burlington, Massachusetts

EDITORIAL OFFICE
General Electric Company
Electronics Laboratory
Building 3-244
Electronics Park
Syracuse, New York

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SOME QUALIFICATIONS OF A TECHNICAL EDITOR by Ethaline Cortelyou 5
What a technical editor should be and some college curricula

STANDARDIZATION OF IRBM/ICBM TECHNICAL MANUALS by Dr. R. McDowell 10
Some of the problems faced by the writers of ballistic missile manuals

YOU CAN COMMUNICATE MORE SKILLFULLY by C. A. Church 13
The simple systematic approach to do a more expert job

MASS PRODUCTION OF THE TECHNICAL REPORT by M. D. Warnock & D. H. Meldrum 19
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STWE REVIEW is published quarterly (January, April, July and October) by the Society of Technical Writers and Editors, Inc., PO Box 3706, Beechwold Station, Columbus 14, Ohio.

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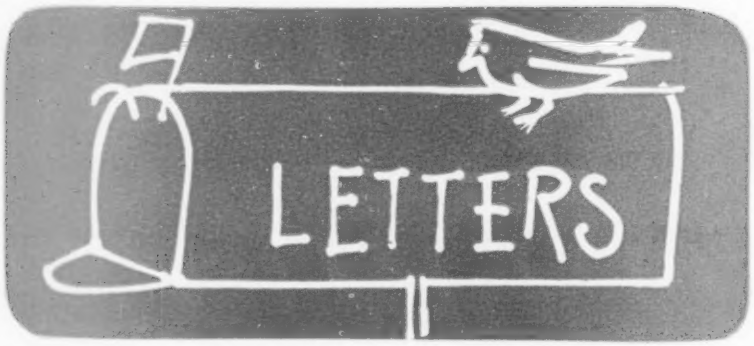


February 10, 1958

Dear Mr. Lytel:

What am I to feel when in an article in the STWE Journal entitled "How To Be A Purist," I find a perfectly inconsistent usage of style pertaining to commas, periods, and quotations marks . . .

My enthusiasm for the entire field of STWE is tempered greatly by the emphasis on writing—and lack of attention to editing. It is my personal belief that writers are born and cannot be made—and thus the attention to "technical writing" is largely wasted.

By contrast, editing is a teachable technique of not great complexity, and one that permits the writings of the poorest writer to be turned into superior technical literature. Although I wait for more attention to editing from the STWE, I receive, instead, page after page telling me what a wonderful profession I have.

Let us have more material of the type in the article "Notes on Preparation of Manuscripts." One or two more articles like this and I might even pay my second year's dues.

Cordially,
Milton H. Aronson
Editor, Instruments and Automation
Instruments Publishing Company
Pittsburgh, Pa.

Well! And this from our good friend (and publisher). What do you think? Can technical writing be taught?—Ed.

February 14, 1958

Dear Allan:

. . . I find that all but one (Bezanson's) of the four papers are really old hat. Rathbone's subject has been covered in a number of places and discussed at more than one TWE meeting. Van Veen's "Purist" is a primer in grammar, though I must admit that his "correlary" was a fine attention getter. Simpson's "Notes" on style are really much more basic than the British paper I called to your attention; is "the best today's opinion" part of the new style? Bezanzon's "Timetable", I think, deserves a follow-up . . .

The format is that of a "slick" rather than of a "professional" magazine. The cuts for the regular features are cute but rather unnecessary. They and the large colored headings take up a great deal of space. Articles, regular features, and advertisements are needlessly intermingled. Three of the four articles are cut up a la Esquire, Saturday Evening Post, et al., causing needless interruption in reading . . . The regular features are fine, and the book reviews particularly well done.

I am in thorough agreement with you that the Review should carry papers on unexplored areas . . .

Cordially,
Ernst M. Cohn, Technologist
Branch of Bituminous Coal Research
U.S. Department of the Interior
Bureau of Mines
Washington, D.C.

February 13, 1958

Dear Mr. Lytel:

I read the January issue of the *Review* from cover to cover over the weekend. It is a great improvement over previous issues. Congratulations on such a fine start on your term as editor . . .

I have a couple of questions . . . Why is it that in a journal such as ours, articles must be split and continued in the back of the book. Why can't these be run on consecutive pages? If it takes a bit of blue penciling to work out space requirements, is that bad? . . . I'm strong for editing when you deem it necessary.

Very truly yours,
H. C. McDaniel, Chairman
1958 Convention Committee
STWE

We tried our best this issue; please excuse the one split article.—Ed.

January 30, 1958

Dear Mr. Hanousek:

Thank you for the copy of the STWE REVIEW containing my article. May I point out that there is an error on page 15? The second numbered item in the right-hand column should "(7) REFERENCES . . ." rather than "(8) REFERENCES . . ." as printed.

Very truly yours,
Warren B. Bezanson
United Aircraft Corp.
East Hartford, Conn.

February 12, 1958

Dear Mr. Lytel:

I am writing to congratulate the Society of Technical Writers and Editors on the January 1958 edition of the *STWE Review*.

I think that the *Review* is an excellent forward step in an area where I have personally had much interest.

However, I would like to take exception to Mr. Rathbone's article, "Growth of the Technical Writing Profession," when he states that the Technical Publishing Society intended to merge with STWE.

This was an unrealized ambition of mine during my tenure as president of the Technical Publishing Society, and I would want neither STWE nor TPS members to be under any illusions about the immediate plans of the Technical Publishing Society's Board of Directors of which I am an inactive member.

My hearty congratulations on the new publication.

Sincerely,
Edward A. Stearn
Space Technology Laboratories
The Ramo-Wooldridge Corporation
Los Angeles, Calif.

February 10, 1958

Dear Mr. Lytel:

Commendations to you and the entire staff of the *STWE Review*. Your January 1958 issue is an excellent successor to the *Technical Writing Review* and the *TWE Journal*.

As one who has had an active interest in the society journal for many years I was pleased with the high quality of this issue. It maintains the professional standards established in the *Technical Writing Review*. The format, the quality of the articles, and the choice of the name are excellent.

I am looking forward to bigger and better future issues.

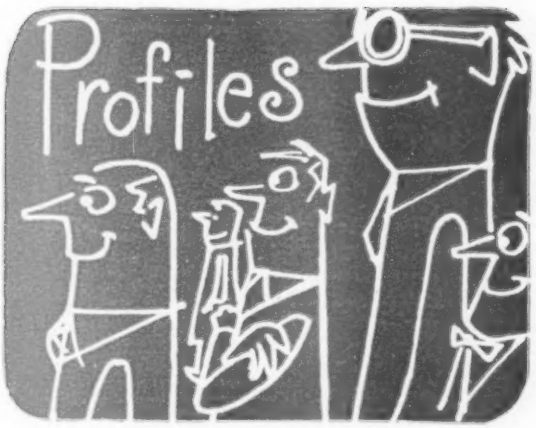
Sincerely,
Robert K. Shnitzler
Advance Industries, Inc.
Cambridge, Mass.

(Continued on page 27)

HELP WANTED?

In the last issue we ran a double-page spread listing all STWE chapters. We meant to give the impression that the chapters needed your help, and that they *wanted help* in STWE activities. We did not mean to imply that STWE was or should be an employment source in a vocational sense; we regret that some members inferred that STWE would find jobs for them as writers or editors.

The STWE Chapters do need your participation. We hope that no ones' feelings were bruised by misinterperting our *attention-getting* device. ED.



IRVING H. JENKS — President STWE

Irving Jenks is a Canadian, born 1916 in the down-east province of Nova Scotia. He received his elementary and high-school education in Nova Scotia and is also a graduate of the Provincial Normal College where he secured a diploma to teach in the schools of Nova Scotia. He taught school for three years. In 1941, Irv graduated with a B.A. degree in English and Chemistry from Mt. Allison University, Sackville, New Brunswick, and received a B.Sc. degree with first-class chemistry honours in 1942.

He worked for the Aluminum Company of Canada Limited at Arvida as a chemist and supervisor of chemical analysis. In 1945, he was transferred to Aluminium Laboratories Limited, Kingston, to edit the Abstract Bulletin of Aluminium Laboratories. He became Head of the Division of Publications and Documents of Aluminimum Laboratories Limited, Kingston, in 1947 a position he now holds.

His responsibilities include technical writing and editing for the Aluminium Limited group of companies, supervision of an industrial library and a bibliographic and literature searching unit, general supervision of the preparation and publication of the Abstract Bulletin of Aluminium Laboratories.

He is author of several handbooks and numerous articles on technical aspects of aluminum. He was joint holder in 1955 of the Plummer Medal of the Engineering Institute of Canada for the best paper on a metallurgical subject.

Irv is a member of the Chemical Institute of Canada and a Past Secretary-Treasurer and a Past President of the Kingston section of the Institute. He is also a member of the American Chemical Society, American Documentation Institute, as well as President of the Society of Technical Writers and Editors. He has been active in the professional affairs of all these societies and is, at present, a member of the Committee on Professional Relations of A.D.I. and a member of the Select Committee on Documentation of the American Society for Metals.

His connection with the technical writing movement goes back about twelve years; active participation in promotion of a society of technical writers and editors began in 1953-54. He was a member of the original committee appointed by the small group of writers and editors who met in Washington at Catholic University, at this time. This group carried out a vigorous program out of which the Association of Technical Writers and Editors, one of the fore-runners of the present society emerged.

Mr. Jenks served as a committee member, two terms as Treasurer and two terms as Vice-President of the Association of Technical Writers and Editors. He has just begun an eighteen-month term as President of the unified organization, Society of Technical Writers and Editors. To date, he has visited the Montreal and Syracuse Chapters, has assisted at an initial, exploratory meeting towards organization of a Chapter in Toronto and has addressed the Sixth Conference on Scientific Editorial Problems of the American Association for the Advancement of Science.

His major hobby is gardening and he is a Past President of the Kingston Horticultural Society. Golf and fishing are second and third extracurricular interests. With his wife, Betty, he designed and built his own home in Grenville Park Cooperative Housing subdivision at Kingston. The house and garden are large enough to accommodate five children in the family who range in age from 4 to 14.

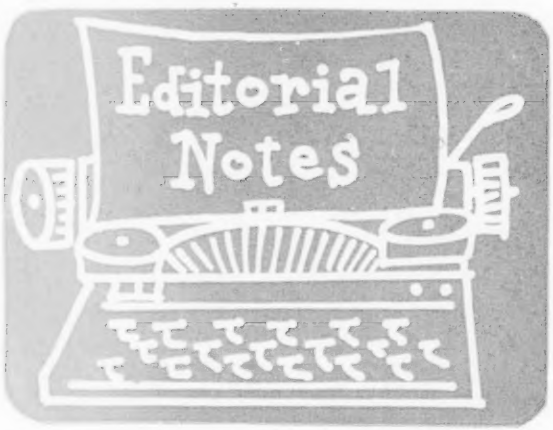
TOM GROGAN — Vice-President STWE

Tom is also the STWE Publications Chairman; he was born in Vandergrift, Pennsylvania and received his B.S. with highest honors, from the University of Pittsburgh in 1942. He received the M.B.A. degree from New York University in 1949. In 1955 he took the "Principles of Publications Engineering Course" at Fordham University.

Tom was employed by Carnegie-Illinois Steel before entering the Navy in 1943. Some time after his naval service he joined McGraw-Hill Technical Writing Service, and became its General Manager in November 1954.

He is responsible for the overall administration of the division, both sales and editorial. Tom has been a Member of the Company's Editorial Committee since January 1955, and Company representative with the National Security Industrial Association since 1955.

(Continued on page 28)



EDUCATION IN TECHNICAL WRITING

Technical writers and editors are part of a new profession; the expansion of STWE and the publication of this journal are measures of this growth. While we, as professionals, have the problems of standards, management relationships, job descriptions, and others as well, perhaps education is our most significant problem.

Technical writing has three educational problems; many present writers have had no formal training, several different approaches to college training are now evident, and as a new profession we will be judged by our own standards.

The very existence of STWE, the Society of Technical Writers and Editors; TPS, the Technical Publishing Society; and PG-EWS, the IRE Professional Group on Engineering Writing and Speech indicates that there is now a large body of technical writers and editors.

But, as Dick Freshee, the former President of TWE, says: "The question that has bothered many of us is just how do we become of age. It's not going to happen overnight—nor by wishing it were so. It is going to happen, I believe, through education and training. The future of the profession rests with the young men and women of the future, not with those who acknowledge that they entered the profession through the back door.

"There are many viewpoints concerning the needs of industry and government for technical writing and editing. There are equally as many viewpoints on how to fill the various needs which exist." (*Technical Writers and Editors Journal,* Summer Issue, 1957, p. 4)

Since there have been but a handful of graduates from complete college degree programs it follows that most of us are not primarily qualified by formal college training in writing. Those of us with formal training in related fields with experience as writers form, it appears, the greatest number. Every working technical writer who acquires some formal college training strengthens our professional stature.

But what are the possibilities? Some programs are shown in the boxes which illustrate Mrs. Cortelyou's article. Kansas State College, the University of Illinois, and Iowa State College are three schools which offer undergraduate degrees; Kansas in Technical Journalism, Illinois in Medical Journalism, and Iowa in Agricultural Journalism. Both Rensselaer Polytechnic Institute and Syracuse University offer graduate programs. But there are several viewpoints.

Dr. Sterling P. Olmstead, Head of the RPI Dept. of Languages and Literature has this to say: ". . . We are superimposing training in writing, editing, and related skills and bodies of knowledge on an undergraduate education in science and technology. A degree in a technical field is a pre-requisite for admission to the RPI graduate program in technical writing.

"The RPI program was first offered in September, 1953. The first graduate received a Master of Science degree with a major in technical writing in February, 1955.

". . . As it has developed the program is marked by two characteristics, breadth and balance. We are interested in producing specialists in technical writing, but we hope these specialists will not be too narrowly specialized. We believe that students who have earned a Master's degree in technical writing should know something about these theories and should be able to apply this knowledge. A 'skill-program' may be useful, but it can hardly be dignified as graduate education, nor can it provide a gateway to a profession.

"The man who has a degree in science or engineering is already prepared to enter a useful and rewarding profession. We are interested in providing a graduate program which will make him broader and more useful rather than narrower and less useful, and we are concerned that he should keep the professional status to which he is already entitled. Every major profession has followed the same line of educational development; it has begun with apprentice training, and as it has achieved professional status it has turned to academic training as a recognized front door for those who would enter its ranks. The Rensselaer program provides, we hope, one very modest front entrance to a maturing profession." (*The Technical Writer,* October, 1957, p. 8)

And so to our third point; this is our profession. These are the formative years.

Now is the time to take part in these programs and their formation.

Mrs. Cortelyou's article is one of a planned series on education. We invite your comments.

ALLAN LYTEL

Editor

SOME QUALIFICATIONS OF A TECHNICAL EDITOR

Ethaline Cortelyou

If we are to be recognized as a profession, we must do more than just establish a national organization . . . We must also establish standards so that curricula can be set up in colleges and universities for the training of technical editors.

Sir James Barrie once said, "The man of science appears to be the only person who has something to say just now, and the only man who does not know how to say it." It seems to me that his statement is probably even truer today than it was when he made it.

Technology is progressing at such a rapid pace that today's students find it necessary to learn infinitely more than the old conventional bachelor's degree in a science. The ever increasing volume of scientific knowledge is crowding liberal arts subjects out of the technical curricula until the average science or engineering major seldom hears the term "proper English" expressed or even implied after his freshman year.

Out of this trend has grown our work of technical editing. Perhaps we should recognize the years of World War II as our real birthdate and the U.S. Government as our progenitor. It was the clause in Government research contracts requiring periodic reporting of progress that pointed up the need for technical editors as liaison between the research man and administration.

If we are to be recognized as a profession, we must do more than just establish a national organization as we are trying to do through this group. We must also establish standards so that curricula can be set up in colleges and universities for the training of technical editors.

It is true that for many years some schools of journalism have claimed to have technical journalism curricula. But many of those schools have had most unrealistic requirements. The catalogue of one large midwestern school reads,

> Science Writing
>
> There is today a growing demand for men and women who have a good scientific or technical background combined with professional training in journalism. One recent graduate in this field is the science editor of a large metropolitan daily. Others have gone to scientific or technical magazines.
>
> The student who elects this program combines the field of concentration in natural science.....with either the News or Magazine sequence. Graduate students who have a degree in engineering, chemistry, physics, or zoology superimpose the News or Magazine sequence courses on top of the technical or scientific training.

This sounds real jolly until the poor science or engineering graduate discovers that to get a master's degree in journalism he must have about 70 semester hours in journalism and English and 40 semester hours in social sciences.

It seems to me that the Master of Science Degree in Writing offered by Rensselaer Polytechnic Institute might be used as a pattern by other schools planning to offer degrees in technical journalism. Rensselaer honestly recognizes a bachelor of science degree as the prerequisite for entrance to the graduate school and the basis of a 30-hour graduate program in the English Department. The required English and journalism courses make up 18 semester hours and of the remaining 12, 6 must be taken outside the English Department.

Actually, both the home economics and agricultural editors are far ahead of other technical editors in establishing themselves as professionals. Such schools as Kansas State, Iowa State, and The Oklahoma Agricultural and Mechanical Colleges have long had thriving home economics-journalism and agriculture-journalism curricula. In fact, the agricultural college editors have had a national organization for many years and issue a monthly publication ACE.

IOWA STATE COLLEGE
Curriculum in Agricultural Journalism

Freshman

Fall Quarter	Cr.	Winter Quarter	Cr.	Spring Quarter	Cr.
Livestock Problems A.H. 111	3	General Chemistry Chem. 102	4	Prin. of Crop Production Agron. 114	4
General Botany Bot. 101	3	Elements of Dairying D.I. 114	4	Livestock Problems A.H. 112	3
General Chemistry Chem. 101	4	Prin. of Composition Engl. 102	3	Organic Chemistry Chem. 264	5
Prin. of Composition Engl. 101	3	Gen. Poul. Husbandry P.H. 101	3	Prin. of Composition Engl. 103	3
General Horticulture Hort. 114	3	Introd. to Sociology Soc. 234A	3	Journalistic Vocations T.J1. 110	2
Military 111	1	Military 112	1	Military 113	1
	17		18		18

In addition to the courses listed above, each student will be required to include in his schedule: Phys. Ed. 101, 102, 103; Library 106A (Fall); Ag. 101; Ag. 104.

Sophomore

Soils Agron. 154	4	Prin. of Economics Ec. 232	3	Forage Crops Agron. 234	3
Prin. of Economics Ec. 231	3	Radio & Telev. Sp. 302	3	General Bacteriology Bact. 200	3
Hist. of Amer. Agri. Hist. 324	3	Ag. Mathematics Math. 205	4	Prin. of Economics Ec. 233	3
Prin. of Broadcasting Sp. 301	3	General Psychology Psych. 204	3	American Government Govt. 315A	3
Technical Reporting T.J1. 221	4	Technical Reporting T.J1. 222	4	Military	1
Military	1	Military	1	Electives	4
	18		18		17

In addition to the courses listed above, each student will be required to include in his schedule: Phys. Ed. 201, 202, 203.

Junior

Farm Mach. & Power Mgt. A.E. 334	4	Propaganda Analysis Engl. 205	3	Photography in J1. T.J1. 317	3
General Genetics Gen. 300	3	Copy Editing & Typog. T.J1. 342	2	Copy Editing & Typog. T.J1. 343	2
Copy Editing & Typog. T.J1. 341	2	Technical Advertising T.J1. 446	3	Magazine Production T.J1. 451	2
Technical Advertising T.J1. 445	3	Electives	9	Electives	9
Electives	5		17		16
	17				

Senior

Technical Writing T.J1. 426	3	Technical Writing T.J1. 427	3	Business Law Ec. 365C	3
Law of Communications T.J1. 430	3	History of Journalism T.J1. 431	3	Electives	12
Radio & Television News T.J1. 481	3	Informative Writing for Radio & Television T.J1. 475	3		15
Electives	8	Electives	7		
	17		16		

Elective courses are suggested as indicated for the four fields of specialization below:

1. Radio and Television: Sp. 301, 302, 328; T.J1. 326, 482, 483, 576 and 584.
2. Agricultural Writing: A.H. 205; Ec. 407, 335 or 430; Engl. 256, 354 or 364.
3. Advertising: Ec. 340, 384 and 515; T.J1. 326, 464, 465 and 515; Psych. 484, 485.
4. Newspapers: T.J1. 223, 464, 465 and Govt. 424, 457.

The American Medical Writer's Association (AMWA) which was organized in 1940 has also set us an example. As the result of deliberations by the AMWA Educational Committee in September 1954, the University of Illinois, Oklahoma Agricultural and Mechanical College, and the University of Missouri offered four year courses in medical journalism.

Dr. Harold Swanberg[1] said, "There must be non-medical graduates who can examine a medical manuscript and correct the English. In doing so, however, they must not change good medicine expressed in bad English into good English expressed in bad medicine." Is there any one of us who has not winced at a scientist-author's complaint of, "You've changed my meaning"?

However, I do realize that there are some present who probably will take issue with my premise that a good technical editor must have training in both science and journalism (or English). It has been my experience that it is much easier to take a good chemist from a liberal arts college and teach her the editing needed to make a good technical editor than it is to take an English student and teach her enough science to make a good technical editor. I prefer a good graduate of a liberal arts school because she is more likely to have a good background in English than the graduate of a technical school.

I am sure that most of us came into technical editing by paths other than a degree in the field. Many of us are scientists turned editor; others were English majors. The manner in which we entered the field will color our thinking as to the best preparation for a technical editor. However, if our profession is to grow in numbers and in stature we must agree upon and draw up an adequate curriculum, and persuade schools to offer it.

Perhaps you have noticed my tendency to use the feminine pronoun in referring to technical editors. At Armour Research Foundation, where I am employed, all our editors are women.

Actually, it seems to me that technical editing and women scientists were "made for each other". Dr. Swanberg[1] said, "Someone has said that the special qualities of a medical journalist and writer include a patience with detail, a passion for precision, and a dedication that enables him to take as much pride in helping others to express themselves as in gaining recognition for himself." I am sure you will agree that the same qualities apply to the technical editor. Tradition has long attributed to women as feminine characteristics: patience with routine, meticulous attention to little things, and willingness to serve without glory, as well as facility with words.

You will remember that in the general discussions at the Roundtable on Editorial Problems in Washington last year, we all agreed that getting along with the authors is an editor's toughest problem. We felt capable of handling the reports but wanted advice on handling the reporters. The basic principle of good editor-author

RENSSELAER
POLYTECHNIC INSTITUTE

Master of Science Degree

The Department of English offers a program leading to the degree of Master of Science with a graduate major in Writing, for graduates in Science or Engineering who have shown aptitude for writing in their undergraduate work, and who may wish to enter one of the many fields in which technical knowledge must be supplemented by skill in writing and editing. The program is designed both to further the student's technical training and to equip him to meet the writing and editorial requirements of industry and of the technical publishing business.

The program comprises 30 credit hours of organized study made up of 18 credit hours of required courses conducted by the English Department; at least 6 credit hours of approved courses taken outside the English Department; and 6 credit hours of additional courses taken either in the Department or outside the Department.

The student prepares his plan of study in consultation with his English Department adviser. It is expected that for most students the following courses will be required, although the student's previous training will be taken into account in determining whether his needs can be met better by modifying the course requirements or by adapting the work expected of him in the required courses. Some of the courses in this list may, on the approval of the English Department, be taken by graduate students not registered for the Master of Science with a graduate major in writing.

G9.81 Writing and Editing I (3 credit hours)
G9.82 Writing and Editing II (3 credit hours)
G9.84 Advanced Exposition (3 credit hours)
G9.85 Writing for Publication (3 credit hours)
G9.86 Scientific Masterpieces (3 credit hours)
G9.88 Law for Writers (1 credit hour)
G9.89 Mechanics of Publishing I (1 credit hour)
G9.90 Mechanics of Publishing II (1 credit hour)

Elective courses within the English Department, of which the student may take 6 credit hours, are ordinarily selected from the following list:

G9.91 Logic and Statistics
G9.92 Scientific Writing in America
T9.80 Philosophy of Science

Under certain circumstances a special course in a foreign language may be available for election.

KANSAS STATE COLLEGE

Curriculum in Technical Journalism

Freshman Year

FIRST SEMESTER		SECOND SEMESTER	
Course	Hours	Course	Hours
Written Communications I	3	Written Communications IIB	3
Man's Physical World I	4	Man's Physical World II	4
Oral Communication I	2	General Psychology	3
Modern Language or Social Science	6	Modern Language or English	3
Air Science or Military Science	1	Option	2
Technical Journal Lecture	0	Air Science or Military Science	1
Physical Education	0	Technical Journalism Lecture	0
		Physical Education	0
Total	15 or 16	Total	15 or 16

Sophomore Year

Biology in Relation to Man I	4	Biology in Relation to Man II	4
Reporting I	3	Reporting II	3
Graphic Arts Survey	2	Option	4
Typography Lab	1	Elective	4
Elective	5	Air Science or Military Science	1
Air Science or Military Science	1	Technical Journalism Lecture	0
Technical Journalism Lecture	0	Physical Education	0
Physical Education	0		
Total	15 or 16	Total	15 or 16

Junior Year

Introduction to Humanities I	4	Introduction to Humanities II	4
History of Journalism	3	American Literature I	3
Radio & Television News or Rural Press or Public Information Methods	2	The Home Page or Reporting III	3
Principles of Advertising	3	Editing	2
Option	3	Option and Elective	3
Technical Journalism Lecture	0	Technical Journalism Lecture	0
English Proficiency	0		
Total	15	Total	15

Senior Year

Magazine Article Writing	2	Interpretation of Contemporary Affairs	3
The Journalist in a Free Society	3	Option and Elective	12
English elective	3	Technical Journalism Lecture	0
Option	7		
Technical Journalism Lecture	0		
Total	15	Total	15

Number of hours required for graduation: 120 (women) or 124 (men)*

SOCIAL SCIENCE OPTION: The student must select 15 hours of approved courses in a field such as political science, public relations, business administration, marketing, foreign affairs, or others.

TECHNICAL OPTION: The student must select 12 hours of approved courses in a field such as agriculture, education, engineering, architecture, music, home economics, science in industry, flood control, dairy industry, electrical engineering, food preparation, clothing design, industrial management, industrial psychology, metallurgy, milling, public health, soil conservation, veterinary medicine, transportation, heavy construction, or others.

* Before graduation, the student is required to have completed two months of vocational journalistic experience.

UNIVERSITY OF ILLINOIS
Typical 4 Year Medical Journalism Curriculum

Freshman

1st Semester	Hrs.	2nd Semester	Hrs.
Rhetoric & Composition	3	Rhetoric & Composition	3
Personal & Community Hygiene	2	Organic Chemistry	3
General Chemistry	5(3)	Foreign Language	4
Foreign Language	4	General Zoology	5
Basic Physical Education	1	Basic Physical Education	1
Basic Military	1	Basic Military	1
Electives	0(2)		
	16		17

Sophomore

Physical Science	4	Physical Science	4
English Writers Before 1800	4	English Writers 19th Century	4
Foreign Language	4	Introduction to Pyschology	4
Introduction to Philosophy	3	Introduction to Sociology	3
Basic Military	1	Basic Military	1
Basic Physical Education	1	Basic Physical Education	1
	17		17

Junior

Beginning Reporting	3	Reporting Practice	3
Typography	2	Magazine Article Writing	3
Press and Public Opinion	3	Introduction to Advertising	3
Anatomy & Physiology	5	General Applied Statistics	3
Economics	3	History of U.S., 1865-1953	3
		Physiological Psychology	3
	16		18

Senior

Advanced Reporting	3	Copyreading and Editing	4
Graphic Prod. Processes	3	Special Problems	2
Newspaper Law	3	Contemporary Political Theory	3
Medical Terminology & Community Health	2	Advanced Electives	6
Contemporary Sociology	3		
Advanced Electives	3		
	17		15

GRAND TOTAL (Exclusive of military and physical education) 125 hours.

Humanities (Including Rhetoric and Foreign Language)	29
Social Sciences	25
Natural Sciences	30
Journalism	32
Electives	9
	125 hours

relations is not to damage the author's ego, and most women are more careful of the feelings of others than are men.

Important factors in determining how well an editor handles her reporters are the three interdependent qualities of a sense of humor, a sense of proportion, and a willingness to compromise. Often an editor can "kid" an author into accepting editorial changes because she is known to have a sense of humor even when the joke is on her. Such devices as slanted recaptioning of the pictures in a baby picture cartoon book, a tailor-made crying towel for authors, a cup of coffee and an aspirin, and a "gold-plated", mounted bottle neck (any brand) for authors of late reports have proved much more effective in maintaining a report schedule than a "delinquency report" to the boss or working overtime. Many times an editor can get her own way on really important issues by conceding minor points. Ω

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[1] Medical Journalism and Writing Courses Now Available, a paper read to the Illinois State Academy of Science, May 7, 1954, at Monmouth, Illinois.

STANDARDIZATION OF IRBM/ICBM TECHNICAL MANUALS

D. R. McDowell

The idea for pocket-size manuals comes from military experience . . . airmen were preparing "Reader's Digest" versions of large manuals in order to have with them at all times the critical information on their assignments which could not be memorized.

Introduction

The program for standardization of the ballistic missile technical manual program presents, I am sure, a pattern which will become familiar in American industry as military weapon systems management becomes more widespread and better understood. The problem of standardization is certainly not confined to technical manuals or to ballistic missiles. As military weapons become steadily more complex, the management of their development, their production, and their maintenance during operation also increases in scope, particularly if the complex includes a number of major contractors, physicially separated, each with many other customers and with procedures and policies well rooted in tradition.

The Weapon System Concept

I should like to explain two major elements of the problem before explaining our approach to its solution. First, it is important to understand the Air Force weapon system concept and the tasks of an organization with responsibility for weapon system management. Air Force Regulation 5-47 describes a weapon system as made up of equipment, skills, and techniques and including ". . . all related equipment, material, services, and personnel . . . so that the instrument of combat becomes a self-sufficient unit of striking power."

An organization with a responsibility for weapon system development must regard these major elements of equipment, skills, and techniques as design problems, since proper integration must be achieved to create a workable, efficient, and reliable "Unit of striking power." A ballistic missile system has the same three elements, equipment, skills, and techniques, but in the form of highly complex hardware, highly skilled military personnel, and elaborate technical data in the form of training material, technical manuals, job cards, spares information, check lists, etc. Our systems will not operate unless people receive the right signals, compare these signals with stored information, and react correctly in an operation much like that of a computer. The information must accurately reflect the configuration and characteristics of the equipment, and must also be in a language which is understandable to our human computer, the trained military operator or maintainer.

People are essential components of a weapon system and, as in hardware design and fabrication, it is necessary to get the best available raw material [through original personnel selection], proper design [through operational and training planning], and adequate fabrication and maintenance in an operational environment [through basic training, on-the-job training, housing, morale programs, etc.]. Without this application of basic design principles to personnel, the system cannot produce a maximum output in a military operational environment.

The technical data which support the operational people must be carefully designed and produced, completely integrated with the equipment and with the latest training, logistic, and maintenance plans to insure maximum accuracy and compatibility with military operating concepts. Maintenance manuals must not recommend actions which are beyond the skill and training level of personnel doing the work; spare parts catalogs should not list spares which are not replaced in the field. A weapon system, in other words, can be described as a "package" of equipment, skilled people, and technical data, the three elements properly designed to fulfill rigid operational requirements, and this design effort is the prime mission of a weapon system management organization.

The USAF Ballistic Missiles Organization

In the USAF Ballistic Missiles Program, management responsibilities are assigned to the Air Force Ballistic Missile Division [AFBMD] of the Air Research and Development Command [ARDC], the Ballistic Missiles Office [BMO] of the Air Materiel Command [AMC], and to the Space Technology Laboratories [STL], a division of the Ramo-Wooldridge [R-W] Corporation.

AFBMD has over-all responsibility including operational responsibility for IOC [Initial Operating Capability]. BMO has the usual AMC charter for contract monitorship. Ramo-Wooldridge is responsible for systems engineering and technical direction of the many contractors currently designing and producing hardware. This AFBMD/BMO/STL complex operates as a single organization. Personnel of the three groups to a large degree are integrated physically and operationally.

IRBM/ICBM Technical Manual Concepts

To a large degree, the standardization effort now under way is similar to that which has been going on among the military services for many years, relative to a standard interpretation of certain specifications, symbols, nomenclature, abbreviations, illustration techniques, etc. Symbol standardization is one of the more familiar problems. However, early in the program several new requirements for ballistic missile technical manuals became evident. These requirements have developed into the major part of the standardization effort, since they represent two significant departures from past technical manual concepts. These are, first, the smaller size of some of the manuals and, second, their orientation to the task assignment of personnel using them, in contrast to orientation to the equipment being used.

The job-oriented manual concept is considered by the Armed Services to be a necessary refinement and extension of other recent developments in technical manual policy. It is essentially a result of the need for increased specialization. No longer can one maintenance man or even a small group of men absorb the information necessary to maintain military equipment. The only practical answer is to separate the required knowledge into many segments so that it can be absorbed.

The complexity of military equipment has been growing at an ever-increasing rate. Technical manual usability has never been quite adequate, although more nearly adequate specifications have brought about constant improvement. About 1951 the Air Force realized the need for more specialized documentation to support specially trained airmen. This resulted in the sectionalized handbooks under specifications such as MIL-H-25098 which subdivided maintenance into separate areas such as hydraulics, electronics, fuel system, power plant, etc. The Air Force has now recognized a need for further specialization in its ballistic missile program in the form of job-oriented manuals.

Job-oriented manuals may be contrasted with the more familiar equipment-oriented manuals in that the job-oriented describes one major assignment of an operator or maintainer, while the equipment-oriented describes one piece of equipment and the functions required for its operation and maintenance. A job-oriented manual develops from basic task-equipment analysis by the contractor, and then groups these tasks in relation to available skills and to maintenance and logistic plans. The job-oriented manuals will be used primarily at the organizational level of maintenance.

The idea for pocket-size manuals comes from military experience which indicated a need for information that can be carried in a standard Air Force coverall pocket. It was found that airmen were preparing *Reader's Digest* versions of large manuals in order to have with them at all times the critical information on their assignments which could not be memorized. Experience showed this to be a practical answer to the problem of having key information always available, and the formal requirement for pocket-size manuals is the result.

Ballistic Missile Technical Manual Standardization

Technical manuals were recognized as a major problem area by those concerned with the operational phase of the program. As an indication of the scope of the program it can be stated that manuals on the Atlas, Titan, and Thor will, as a composite task, comprise the largest single technical manual program ever attempted. In addition to the basic problem of an exceedingly large work load in a minimum time schedule, four other major problems were recognized:

Problem: How can reliable technical manuals be produced in the middle of a research and development [R and D] program while major design changes are taking place on individual items or on small blocks of equipment, with many of these changes not properly documented?

Solution: [1] It was recognized that manuals could not be as finished or complete as the final manuals on a normal production program. Manuals submitted should be considered interim.

[2] In practice, information in manuals would have to be carefully verified against the equipment.

[3] Faster distribution methods for critical technical data would have to be devised. These methods will probably take the form of teletype transmissions between contractors and operating bases, with the teletype receivers typing directly on multilith plates. Such transmissions would only be used for emergency and safety changes that cannot wait for the routine 60- or 90-day revisions.

Problem: How is it possible to standardize the efforts of at least 14 major contractors, physically separated, with

well-established but varied production procedures, in different fields of work, and used to different customer requirements, both military and commercial?

Solution: [1] A control specification was created, based on existing military specifications but adapted as necessary to the special requirements of the ballistic missile program. This specification, in the form of a contract exhibit, attempted to clarify and coordinate the requirements of the various Air Force agencies interested in better technical manuals.

[2] A chart presentation was prepared and a briefing team of Air Force and Ramo-Wooldridge personnel organized to explain the new requirements to producing contractors. Every attempt was made to brief all levels of contractor personnel, from management to production, since without this the lower levels would still have to brief their own management, sometimes without complete understanding.

[3] Meetings were scheduled at the AFBMD/BMO/STL complex to allow group discussions among contractor publications personnel who would have to work together.

[4] The airframe contractors on each system were assigned the prime responsibility for integration of material, including the *General Weapon System Manual,* the book which describes the total system.

Problem: How can maximum usability in ballistic missile technical manuals be achieved, considering the R and D nature of equipment, short production schedules, and integration problems?

Solution: [1] Analysis of deficiencies in other manual programs, as made evident in military reports.

[2] Emphasis on scope of coverage and proper reader level according to training and manning plans.

[3] Emphasis of visual quality where necessary to expedite production and minimize cost.

[4] Major emphasis on accuracy and concurrency with equipment.

[5] Books to be pocket size and job-oriented.

Problem: How can technical manuals be planned during the R and D phase for smooth transition to production manuals?

Solution: [1] Maximum use of existing AMC specifications, where applicable.

[2] Maximum coordination with agencies [Strategic Air Command [SAC] and the Weapon System Manager] that will have prime responsibility during UOC [Ultimate Operational Capability]. The Weapon System Manager is a new agency which centralizes many functions that used to be spread among a number of Air Materiel areas. The Air Training Command will, of course, be active through both IOC and UOC.

[3] AMC conversion of the contract exhibit to a formal technical manual specification.

This sums up the present state of IRBM/ICBM technical manuals and should probably be considered a progress report, since we can point to no completed publications. The program, as planned, has created a great deal of interest in the technical publications field and when fully implemented will represent a significant step forward in the science of technical documentation.

YOU CAN COMMUNICATE MORE SKILLFULLY

C. A. Church

To effectively gain cooperation of people, put yourself in their place. Then orient your message to their needs and interests, making your pitch short and to the point by appropriate techniques.

Do you have trouble expressing yourself to others? Do your employees react slowly to your recommendations? Do you frequently feel frustrated because people don't readily buy your ideas and concepts? In short, do you repeatedly suffer from failures in communication?

If so, you have plenty of company in every profession. For the very word *communication* is widely thought of as in itself unlocking the way to a wide variety of teamwork attainments. But the communication process is more than mouthing words, evidenced by the confusion, misunderstanding, and frustration that exists unabated despite the mountains of mail, the endless meetings, and the infinity of articles.

You needn't despair, however, there is a solution. Communication difficulties usually arise because people tumble into one or more of the three common pitfalls: They (1) have a fuzzy purpose, (2) confuse their message with techniques, and (3) take the audience for granted. A little time spent in learning about the communication process beforehand will not only avoid the pitfalls but also conserve thought, time, and effort for all people involved.

The Communication Process

As a prerequisite to effective communication you should have at least a nodding acquaintance with the nature of the process. For our purposes, let's think of communication as "the flow of intelligence via a specific connection between two minds, one of which has a message to transmit, and one of which is capable of understanding and willing to listen." Based on this definition, the communication process breaks down into four simple elements: a communicator, a message, a connection, and a recipient.

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Ways That You Can Avoid . . .
. . . Common Communication Pitfalls

- Have a definite purpose.
- Keep the message and the technique separate in your thoughts.
- Realize that your audience may not necessarily give you its full attention unless you make your presentation brief, understandable, and worthwhile from your recipient's viewpoint.

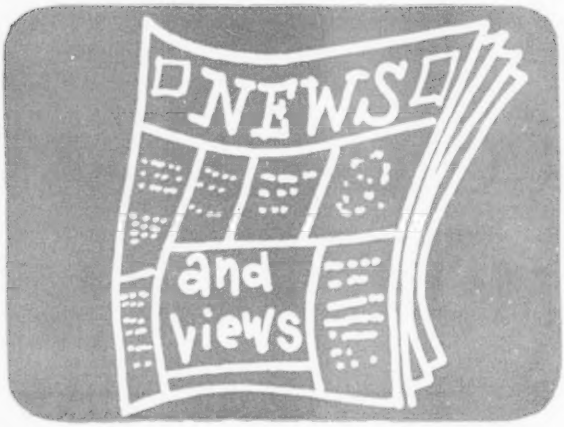
For this process to work effectively, certain relationships must prevail. The elements must be matched, so to speak. For example, the communicator must be well-informed in some fields, have a desire to communicate, and have a purpose in mind. In addition, the recipient must be able to understand, willing to pay attention, and capable of responding. Moreover, the connection must be one that bridges the communicator and the recipient, and the message must be appropriate to the occasion.

Another important consideration involves the end result desired from a particular business communication process for one or more of the following: (1) to inform, (2) to stimulate thought, (3) to persuade, and (4) to induce a response.

The first two end results are in effect built into the communication process. The recipient, once he has agreed to listen or read, can scarcely help being informed or stimulated. When you want the last two end results, you use the communication process to sell something to someone.

The psychology and techniques of selling permeate all elements of the process. When the sale does not

(Continued on page 16)



TECHNICAL AND MEDICAL WRITERS' INSTITUTES AT RPI

From Jay R. Gould, Rensselaer Polytechnic Institute, we have the following announcements of RPI's institutes this June. RAH.

Eight technical writing authorities from the business and industrial world will survey the field of technical communication at the Sixth Annual Technical Writers' Institute to be conducted at Rensselaer Polytechnic Institute, Troy, New York, from June 9-13, 1958. The week-long workshop, conducted by Jay R. Gould, Director, will be staffed by nine lecturers from Rensselaer's faculty in language and literature.

More than 400 representatives of 200 large companies have attended the previous annual sessions of the Technical Writers' Institute. The intensive Monday through Friday seminar is designed to give guidance to those who supervise technical writing, to those newly entering the field, and to those already established.

The attending group will be divided according to interest and specialization. Sessions will be conducted on report writing, manual and instruction book writing, technical sales writing, the preparation and publication of magazine articles, and technical illustration. A new feature of the sixth session will be a demonstration of instructional films by Rensselaer's newly established Department of Audio-Visual Education.

The special lecturers of the Sixth Institute will include: Benjamin B. Schaeffer, supervisor of technical publications, Olin Mathieson Chemical Corporation; Robert E. Speers, editorial advisor, Engineering Research Laboratory, E. I. du Pont de Nemours & Company; S. J. Goodman, manager, Technical Publications Department, Aircraft Radio Corporation; Joseph C. Hoffman, product information, General Electric Company in Philadelphia; Carroll A. Nolan, chairman, Department of Business Administration, Syracuse University; Howard J. Constantin, publications section head for illustrations, Sperry Gyroscope Company; Hugh T. Sharp, promotion manager, *Chemical Engineering* Magazine; and William L. Millard, assistant professor of audio-visual education, R.P.I.

Inquiries about the Sixth Annual Technical Writers' Institute should be sent to Jay R. Gould, Director, Rensselaer Polytechnic Institute, Troy, N. Y.

* * *

An event of interest to professional writers is the announcement that the First Annual Medical Writers' Institute will be held June 12-14, 1958, at Rensselaer Polytechnic Institute, Troy, N. Y. The intensive seminar of study and workshop practice will start on Tuesday morning and end with an evening session on Thursday. It will be under the auspices of the Technical Writers' Institute, now entering its sixth session under the direction of Professor Jay R. Gould of R.P.I.

The three-day course will be coordinated by Dr. Joseph F. Montague, prominent writer and lecturer, and president of the New York Chapter of the American Medical Writers' Association. An outstanding group of medical writers will serve as visiting lecturers in the fields of medical reports, manuals and instructions, medical advertising and journalism, and medical illustrations. Included in the group will be Dr. Morris Fishbein, editor of *Excerpta Medica* and president elect of the American Medical Writers' Association; Dr. Benjamin W. Carey, medical director, Lederle Laboratories; Dr. Erwin DiCyan, director, DiCyan & Brown, consulting chemist and past president, Association of Consulting Chemists; Dr. Richard M. Hewitt, Publications Division, Menninger Foundation; Dr. Walter Kahoe, medical editor, J. B. Lippincott Company; Dr. Frank Netter, well known medical artist and illustrator; Professor Carroll A. Nolan, chairman, Department of Business Education, Syracuse University; Dr. Arthur Sackler, of the William Douglas McAdams Advertising Agency, New York; Dr. Felix Marti-Ibanez, editor, *MD*; and Mr. A. A. Rasch, medical editor, Roswell Park Memorial Institute.

The basic instructional phase will be staffed by members of the Technical Writers' Institute, including Professors Sterling P. Olmsted, Douglas H. Washburn, Chris Sanford, and Robert A. Sencer. They will be in charge of the daily workshops and discussion groups.

The Medical Writers' Institute has been designed to bring expert guidance to those who supervise medical writing, to those newly entering this expanding profession, and to those practicing writers who need an exchange of recent ideas.

Inquiries should be addressed to Professor Jay R. Gould, Medical Writers' Institute, Rensselaer Polytechnic Institute, Troy, New York.

SUMMER INSTITUTE IN TECHNICAL AND INDUSTRIAL COMMUNICATIONS

A week-long Summer Institute in Technical and Industrial Communications has been scheduled on the campus of Colorado State University starting on July 7, 1958.

by Richard A. Hanousek

First of its kind in the Rocky Mountain area, the institute is designed to give participants both a practical workshop in which to improve writing skills and an opportunity for an outing in the famed Colorado vacationland.

Counseling, and intensive basic and advanced instruction in technical writing and related industrial communications will be offered. The purpose of the institute is to give each participant a fuller awareness of the entire technical communication field, extend his skills in the craft and give him greater assurance in his writing abilities.

A number of nationally-known authorities will be on the instruction staff, according to Dr. H. M. Weisman, associate professor in the Department of English and Modern Languages and director of the institute. Already engaged, with more yet to come, are John Bryant, Detroit, editor of the General Motors Engineering Journal; J. F. Ward, president of Reynolds, Ward and Corey, Management Consultants; and Henry E. Marschalk, Washington, head of the publications branch, Bureau of Ordnance, Department of the Navy.

The institute will be of special interest to administrators, scientists, engineers, teachers, editors, copy writers, and technical writers engaged in the supervision or preparation of reports, manuals, house organs, advertising pieces, sales sheets and catalogs, public relations brochures, letters and other technical communications material.

In addition to lectures by the institute staff, the workshop will feature group discussion, films, laboratory writing exercises, and personal consultations. A special problem clinic will be held in which participants may submit their own communications problems for review and criticism.

A fee of $100 will cover all institute sessions, meals, and lodging in Newsom Hall, the University's newest, most ultra-modern dormitory, and special events.

Persons desiring to register or to obtain further information about the institute should write Chairman, Department of English and Modern Languages, Colorado State University, Fort Collins, Colorado.

A vote of thanks goes to the kind heart from Information Service at Colorado State University for writing part of the column this month. RAH.

TECHNICAL REPORT WRITING WORKSHOP

T. Reed Ferguson informs us that the Pennsylvania State University will again conduct a workshop on Technical Report Writing. The dates for the workshop are September 14-26, 1958. Topics to be covered during this two week period include: Functions and Anatomy of a Technical Report; Usage and Diction; Prewriting Preparation and Introduction; Pitfalls in Grammar, Punctuation, and Mechanics; Writing the Main Body, Conclusions, Recommendations, and Abstract; Functions and Use of Illustrative Material; Reproduction Methods; Producing the Technical Report; Paragraphing; Preparing the Summary, Appendices, Bibliography, Title Page, and Table of Contents; Review of the Characteristics of a Good Report; Summary.

The staff for the workshop consists of Dr. Dwight E. Gray, program director for Government Research Information, Office of Scientific Information, the National Science Foundation; Arthur G. Norris, manager of the Washington Office and formerly director of Technical Information, the Vitro Engineering Division, the Vitro Corporation of America; and Christian K. Arnold, associate professor engineering research and staff assistant to the President, The Pennsylvania State University.

Registration fee for the workshop will be $90. Meals and accommodations are extra. Make your plans now. Further information can be had from: T. Reed Ferguson, Extension Conference Center, The Pennsylvania State University, University Park, Pennsylvania.

FIRST ANNUAL INSTITUTE FOR TECHNICAL WRITERS

On January 30, 1958 the Department of General Studies, Carnegie Institute of Technology, and the Pittsburgh Chapter of STWE jointly sponsored the First Annual Institute for Technical Writers at Margaret Morrison Carnegie College, Carnegie Institute of Technology. Addresses on *Communications* were delivered by Doctors Erwin R. Steinberg and William Schutte of the Carnegie Institute, and Doctor W. George Crouch of the University of Pittsburgh.

Three seminars were conducted in the afternoon by members of various industrial concerns including: Westinghouse, Aluminum Company of America, McGraw-Hill Publishing Company, United States Steel Corporation, and International Business Machines. The seminars covered "Interpreting Science to the Public", "Technical Article and Report Writing", and "Manual Writing".

This was the first of many writing and editing institutes which will be conducted this year. We trust that they all advance the stature of our profession.

(Continued on page 25)

(Continued from page 13)

materialize, you should reappraise the communication process, of course. However, a reappraisal of the market conditions and the selling psychology is equally important. Many people hear "the word" but don't act accordingly.

Fuzzy Purpose

Most people have the knowledge, urge, and ability to expound copiously on a pet subject. With little or no forethought, words flow easily and the experience is gratifying. If you yield to this temptation, you're in the fuzzy-purpose pitfall. Likely result? A confused, impatient, or drowsy listener—and little fruitful communication.

The fuzzy-purpose pitfall is devastating in several respects. If you lead off without an apparent reason for talking, the recipient is likely to turn his attention elsewhere. In addition, you may talk too long about irrelevant subjects, and to people who can't take action. Without a definite purpose, any other outcome is a coincidence, for you have little basis for intelligent selection or organization of information.

Even when you clearly define your over-all purpose for the communication process, the objectives of related parts may still be vague. For example, you should be able to check off on your fingers the specific results desired from a meeting, publication, or speech. Well-defined purposes make formulation of the message easier and its meaning clearer to the recipient.

Confusing Message with Techniques

You often hear the statement, "We should have a periodical," or are asked the question, "Isn't it time to have a meeting?" The essential question should be, "Do we have a message?"

For some strange reason, many communication-minded people tend to confuse their message with the means of transmitting it. Perhaps it's because as recipients all of us have received forceful messages via a letter, meeting, or movie; thus we associate the two so closely that the thought of one suggests the other. This tendency also persists among communicators because after the exchange is over the only tangible evidence remaining may be a three-color brochure or an 8 x 10 glossy photograph.

A periodical may indeed be desirable and a meeting essential; but, unless the message is suited to the kind of connection in question, little communication takes place. Well-meaning people who fall into the pitfall of confusing the message with techniques create an immediate effect: a busy paper mill and a thriving business for the supporting activities. Don't become so preoccupied with techniques that you lose sight of your purpose with the result that the recipient becomes an excuse or a mere statistic. The recipient is then worse off than before—he must not only spend more time in meetings and sorting mail, but he also becomes burdened with puzzling out whatever of importance the communicator has on his mind, if anything.

Taking the Audience for Granted

To suggest the cavernous extent and treacherous aspects of another pitfall—taking the audience for granted—let's look briefly at the mental preoccupations that can and do logically befall communicator and recipient about to communicate.

The communicator likely will be wrapped up in his own specialty and assume others are equally interested, feel he has all the answers, try to give everyone the full treatment, and judge situations from his viewpoint. Certainly he hopes the recipient will be interested, be knowing, want help, respect the communicator, and respond logically.

Quite in contrast to these fond hopes, the recipient likely will be preoccupied with his own problems, be a busy person in his own right, have established habit patterns, have already formed an opinion, be emotional about making a change, and be unlike any other person.

Moreover, he probably hopes the communicator has the forethought and courtesy to make his pitch short and snappy, talk about the recipient's problems, use understandable terms, present useful information, provide alternatives, and suggest practical courses of action.

With such a divergence in interest and expectation, you can easily see what communication trouble may develop if you take the recipient for granted.

Preface to Better Communication

Communication can't be bought by the cartful—as you would select a commodity at the supermarket. Business communication involves indefinite combinations of people, varying situations, and multifarious purposes; thus a particular instance usually differs in theory and in practice from every other one in some respects. The techniques employed may be identical, but the communication process will not be the same.

If you wish, you may buy the services of a communication specialist, who can be most helpful. However, this in no way relieves you of your leading role in the process—unless, of course, you desire to abdicate this function to the specialist.

A businessman, an engineer, or anyone else is well on his way to more effective communication when he recognizes that he is an indispensable part of the process, that each instance differs, and that the process will respond to good planning. Once you accept this, you will almost perforce think and act in a pattern to avoid the common pitfalls. Even so, an organized approach will not only speed the process but also guard against mental lapses. You may find helpful six general sequential steps (Box) that are amplified in the following paragraphs.

Define the Problem . . .

Your need to communicate suggests a problem involving people. To communicate intelligently, you must know in what respect the people are part of the problem. Who are involved? Are they uninformed or misinformed? Is their attitude hostile or indifferent? Do they act in the wrong way or not at all? Answers to these and related questions are basic to effective communication, providing focus and direction for your planning.

Because each individual has his own peculiar way of doing things, your communication should be in terms that are meaningful to him and his particular job for maximum impact. Unless you define your purpose carefully, you may end up orating vague generalities to a motley gathering and wondering why nobody is listening. A detailed analysis provides a sound beginning for effective communication that gives each recipient the specific information he needs and can act upon.

. . . State the Purpose . . .

When you cannot entirely solve well-defined problems by the communication process, you may wish to supplement your program with other activities. Even when communication offers the complete solution, it may take a variety of messages over an extended period of time. Clear-cut statements of purpose should define what parts the communication process will accomplish, what each message should accomplish, who will communicate them, and what audiences will be reached.

Detailed statements of purpose are a must if you engage the help of specialists to plan, prepare, and execute the communication portion. Without it, an outsider has no basis for intelligent selection or organization.

. . . Formulate Your Basic Message . . .

An abundance of misinformation and a dearth of factual information characterize most communication problems. This generalization applies to both communicator and recipient. On this premise, you should screen your fund of information for unsound assumptions, speculation, and wishful thinking on your part. Closely examine your facts because facts collected to prove a particular viewpoint or quoted out of context can boomerang. Document your information. Is it representative? Will it be palatable to various audiences?

Bias removal and fact checking sometimes discredit parts of both the problems and the purposes that you have carefully prepared. Review them in light of any new knowledge.

Next, assemble additional information pertinent to the problem, the purpose and the recipient. You can now formulate the over-all message. Prepare constructive factual material to include the theory, basic considerations, salient benefits, pertinent explanations, proposed action, and how to carry it out. This becomes the basic reference from which you draw specific messages; thus fine embellishments or crafty shades of meaning are unnecessary. You are talking to yourself or your associates; so husband your psychological ammunition for the time when you engage your audience.

. . . Orient to Your Audience . . .

No two recipients are exactly alike; their interests, their problems, and their temperaments differ. Audiences differ too. Moreover, the ability of individuals, and thus of audiences, to comprehend and respond varies with levels of responsibility, kinds of work, and years of experience. Department managers usually aren't interested in the same processes as line foremen. Design engineers ordinarily have different work objectives than research scientists.

The impact of a product change has one effect on the sales engineer and quite another on the piece-rate worker. When the message passes down through a business organization, these differences are of especial significance. The relaying at each level is a communication process in itself and should be conducted accordingly.

Thus every communicator would do well to systematically appraise each of his audiences beforehand on the basis of such questions as: What are the mutual problems and interest areas? How can the audience benefit by giving attention? What is the depth of subject matter comprehension? Are individual recipients able to respond as expected? How can response be made easy and simple?

Armed with the information elicited by this approach, you can then select and use from your basic reference material only that which is akin to your particular audience on a specific occasion. Such a selection process, if done honestly, usually will reduce several file drawers of "very important" information to amazingly few pages —a most happy result for both you and your audience.

. . . Establish Your Connection . . .

If circumstances have not already established the connection, you should now plan, select, and implement your connections. Depending on the problem, the purpose, the message, and the audience, the connection may be oral or written; man-to-man or in groups; a letter, a bulletin, or a motion picture; a one-shot affair or a campaign.

Whatever the form, you can now indulge a bit in your favorite communication techniques—whether they

A Systematic Way to Better Communication

- Define the Problem
- State the Purpose
- Formulate Your Basic Message
- Orient to Your Audience
- Establish Your Connection
- Measure the Response

be copies of the competition's or personal preferences —without jeopardizing the message. If your message is sound and well oriented, your audience will suffer through or even enjoy almost any vehicle.

Except for extremely clever and talented communicators, day in and day out business communicators tend to submerge techniques to the message. Connections and their associated techniques, as any thoughtful communication specialist will tell you, aid in transmitting your message. But accord them thought and attention only to that degree.

. . . and Measure the Response

Sharp business managers and good engineers recognize the need for measuring results. The fact that communication results defy precise measurement points up even more the need to systematically appraise the response.

An analysis of the response can be particularly revealing and helpful in improving the effectiveness of both repeat performances and new programs on other subjects. Pretesting and dry runs also provide guidance but are no substitute for critical review.

Measure the results and not the connection. Don't ask your audience: "Did you like this meeting?" or "What did you think of that speech?" The movie may have been heart-rending and the brochure beautiful; but, if the audience doesn't remember or act upon the message, the whole affair was time and effort poorly spent. Generally speaking, people in business are rewarded for getting results—so spend your communication dollars accordingly.

Do What Comes Naturally

Communication, old as mankind, takes place naturally and continually and everyone participates—either as a communicator or a recipient. You can't readily segregate business communication into a neat little package and hand it to or blame it on someone else. It needn't become a big production that only a specialist could handle, nor need a good communicator be a thespian or an author.

Clear thinking and a forthright approach seasoned with a dash of practical psychology suffices in the great majority of instances. The simple systematic approach helps you—the everyday communicator—perform your job more expertly with shorter meetings, less paper, and a far better response from the audience. Ω

TECHNICAL WRITING SUMMER SESSION AT UNIVERSITY OF MICHIGAN

From W. Earl Britton we received word of an intensive course in Technical Writing for engineers and scientists. This course will be given from June 16-20, 1958 at the College of Engineering, University of Michigan, Ann Arbor.

This course will provide intensive training in the fundamentals of technical exposition. It will emphasize means of presenting material in clear, forthright, and efficient language, and in a fitting and logical structure, whether for report, technical essay, journal essay, letter, or oral delivery.

The course is designed to improve the writing and speaking of scientists and engineers, and provide technical supervisors with effective means of helping subordinates. Although the course is not intended for professional writers, the instructional techniques to be observed, and the reference and study materials to be provided can be of great value to teachers as well as directors of technical writing groups.

The course will include lectures, demonstrations, and discussions, with emphasis upon workshops and firsthand editing of manuscript. Each member will have the opportunity to speak and read before the group, and to profit from the audience reaction and the staff analysis of his performance.

The staff will include Wilfred M. Senseman and W. Earl Britton, both professors of English at the College of Engineering, and Thomas Farrell, Jr., who is also a professor of English at the College and Editor of Reports for the Engineering Research Institute. These men have had considerable experience in teaching technical and scientific writing and speaking, in both college and industry. They have been employed as consultants in this field, and have had practical experience in writing, editing, and publishing reports and other forms of technical communication.

All correspondence concerning the course should be sent to W. Earl Britton, 31 East Hall, University of Michigan, Ann Arbor, Michigan.

PRIZES FOR TECHNICAL REPORT WRITING

The Elmer E. Brockman Memorial Prize will be awarded by the Fort Wayne Chapter of STWE to a student at Indiana Technical College who demonstrates, in the opinion of the judging committee, proficiency and excellence in technical report writing. The prize is a $50.00 Defense Bond, and will be awarded at the Anniversary Meeting of the Fort Wayne Chapter on May 27, 1958.

Any registered student in his junior or senior year at Indiana Technical College is eligible for the prize. Standards have been established, and in essence the participants must prepare a technical report on original work they performed. The report could be based on either classroom or extra-curricula projects, The primary basis for judging will be the treatment of the subject material.

The Department of English at Indiana Technical English will judge each report, and submit the ten best reports to the Chapter's Prize Committee for final judgment.

It is hoped that other chapters throughout the country will help to create interest in the technical writing field among college students as the Fort Wayne Chapter has.

MASS PRODUCTION OF THE TECHNICAL REPORT

M. D. Warnock & D. H. Meldrum

The first step, of course, is to see that we receive a report in the best form possible. This can be done by education of the author and his supervisor. Most authors, fortunately, are eager to cooperate. They need only to be told what to do.

INTRODUCTION

This article was originally given as a lecture at the TWE Third National Convention by Madeline D. Warnock and Donald N. Meldrum from Fort Detrick, Maryland. The article discusses the handling and processing of a report from submission as manuscript to distribution in printed form. It is interesting to note the new approaches to production problems in an attempt to combat the increasing work load due to normal expansion and the lack of adequately trained personnel in the field.

There is no need to tell this group of the difficulties encountered in producing large quantities of technical reports accurately, promptly, economically, and handsomely. Most of us are only too well aware of the problems associated with such an assignment—the author who lets a draft lie on his desk for four months, then must have it next week "for a very important conference"; the administrator who cannot understand why final copy for reports cannot be cut in a beginners' steno pool "for practice"; the author who "hurries things up" by ordering his own illustrations, odd size, varying from established format, and poorly planned. And then there are the restrictions—cost, of course, must be kept down; production must go up. Trained help is hard to find. In government and, I presume, in private industry, there are seemingly endless restrictions. Most of them, of course, are based on cost. Some, I suspect, on cussedness. In any case, we must work always somewhere between what we would like to do, what we have the capability of doing, and what we are required to do. However, all these problems are part of the game, to be overcome by persuasion, eliminated by education, or organized out of existence.

I think that organization and education are the answers. We are in a relatively new untried field. It is amazing—and a bit appalling—that so many administrators and scientists are so little aware of the complexities of publishing a report. Their oversimplification is almost childlike — You take a draft, "type it up", "fix up the pictures" (Redraw? Photograph? Photolith? Draw on duplimat? Retouch? They are all the same to the amateur), send it to the printer, "and there you are!" Who arranges that it be "typed up"? Who lays out the pages artistically? Who decides what weight paper, what type of reproduction, what format? Who reads proof? Reads copy? Assembles and checks assembly? Binds? Decides on the proper distribution, and sees that it is followed? Who protects the author from gross errors of fact, typographical errors, unpolitic comments or statements? Who remembers that "data" are always plural, and that a unit modifier requires a hyphen? Who checks, in cases where security classification is a problem, to see that security regulations are followed? Don't get excited; those things work themselves out. And, miraculously, they do. But sometimes that working out is haphazard, laborious, inefficient, and costly.

Since it is our obligation to produce these reports, we may as well make it as easy as possible on ourselves. This can best be done, I believe, by evolving a pattern—a production line, if you will—and adhering to it until it is routine. Consistent adherence to that routine, until it is a firmly rooted habit, will eliminate many of those oddities, mishaps and unscheduled crises which antagonize the author, harass the staff, and ulcerate the editor.

Let us, then, establish a pattern—a flow chart toward which we will work as an ideal. Most offices cannot reorganize overnight and establish a new regime. They can, by long-range planning, with a consistent goal in sight, gradually work themselves toward an efficient organization. In our office, we are doing that. So far, we have been successful, although there is an occasional curve in the lines of our flow chart.

We have in our office at any one time about 40 reports in process. I imagine that some of you have many more than that. Thirty—or fifty—or however many you have, cannot be handled efficiently without

careful management. None of us, I would guess, is so lucky that he receives one report, and is allowed to carry it personally through all the steps to final distribution, without distraction, before he is given another. We must prepare, then, for the most expeditious way of handling many reports simultaneously.

The first step, of course, is to see that we receive a report in the best form possible. This can be done by education of the author and his supervisor. Most authors, fortunately, are eager to cooperate. They need only be told what to do. An editorial manual, or manuals, is the best approach. We prefer a series of manuals, each very short, and dealing with specific problems. The first, on format, shows sample title and approval pages (where supervisors and directors sign their authorization for publication). A specified format for the outline, showing the standard breakdowns, makes it possible for the author to submit a draft whose format needs no changing. In addition, the set-up of tables of contents, the required designations of figures and tables, and standard footnote and bibliography formats give the author definite guidelines.

A second manual, showing accepted abbreviations and symbols, allows for standardization without the tedium of the editor's adapting each individual's version to that which has been adopted for the organization as a whole. These abbreviations may be based on Zimmerman and Lavine, ASA Standards, and the GPO Manual, so that they do not vary unduly from those in general use throughout the country.

A third manual deals with the presentation of tabular data. This, we hope, will standardize and simplify the quantities of tabular material present in technical reports, and save the editors accordingly.

With these guidelines, and with consultation with editors as necessary, the authors are expected to, and usually do, submit their material in good form. That is, a typed draft, double-spaced, in the specified format, and on bond paper. All illustrative material is submitted in duplicate. It may consist of rough sketches, photographs, or anything that gives an adequate idea of the finished illustration. If final drawings, suitable for photographic reproduction, are already available, we ask that they be included. We ask that they not be made especially for the report, since frequently they must be changed in some way. We ask that the author include a summary, a list of subject headings for library reference, and a suggested distribution list if there are others than those who would normally receive the report who have a need-to-know. The author is also responsible for classifying his draft correctly if it is security material. The draft must be submitted to the editor through the Chief of the Division where the author works, to establish his concurrence.

When we have reached that point where each manuscript is delivered to the editor with all these things accomplished, and without a demand for an impossible publication date, we shall have reached the millenium. In the meantime, our authors are progressing consistently toward that goal and seem eager to reach the millenium. In the first place, they are pleased to have definite guidelines and to have us take over many of the publication duties which were at one time their responsibility. Once they have submitted a draft, they are in the clear except for a brief consultation with the editor, to resolve any discrepancies.

Now the wheels are set in motion in the Reports Division. Or rather, the wheels have been in motion, and the new report is tossed in, to be caught up and carried along. The editor receives the draft, and immediately assigns it a number. This is a sequential number, and is used as identification throughout publication and afterwards. It is certainly easier to telephone and say "How are the drawings coming on 719" than to ask "How are the drawings on that report on the Peroxide Bomb Decomposition and Amperometric Titration for the Determination of Sulfur." All parts of the draft, as they are separated, processed, and integrated, are marked with this identifying number. In our office we have two main series of reports, Special and Interim, and fortunately their sequential numbers are far enough apart so that they cannot be confused. Other reports, not fitting into either series, are identified by title or requirement, usually abbreviated for convenience.

The editor and assistant editor, in adjoining offices, work very closely together. The assistant maintains the log on each report. The log number is assigned as the report comes in, and is recorded, along with the author's name, his organizational element, the title and classification, and the date of receipt. Each time that action is taken on a report, it is recorded by the assistant editor, so that at any time he knows the exact disposition of the material. In addition, he is in a position to check the timing of the work, and to nudge gently any shop which has held an assignment overlong. It is, in effect, a combination production chart and permanent record.

When a draft has been assigned a log number, it is placed in a labeled jacket and filed in sequence for editorial treatment. If the author has been able to establish a priority, it is so filed, but the editor will be chary of giving priorities freely, or the author who submitted his manuscript on time and took his turn is likely to be shoved aside for the glib late-comer with an urgent appeal for quick service. This filing and waiting in turn is likely to be disconcerting to the author. He would like to think that the editor is sitting at his desk, reading Snuffy Smith, waiting until that particular draft arrives. But it just isn't that way in real life. We try, in our office, to maintain the flow of work so that no draft remains in the editor's office for more than a week. Sometimes, we are successful.

Let us follow Special Report 719 through the intricacies of publication. When the editor has worked his way to 719 in the waiting file, he edits it for all those innumerable things that must be thought of simultaneously—grammar, punctuation, factual consistency, format, security classification, policy, organization of material, standard terminology and abbreviations, lucidity, style, and relation of illustrations to text. When the draft suits the editor, he will confer with the author. If there have been only minor changes, this may be done by telephone. Usually, enough changes have been made that it is desirable for the author to review them and to clarify any obscure passages which the editor has challenged. When both editor and author have agreed on the edited draft, the author is free to go his way and write again.

Now that the content of the report is determined, its appearance must be considered. For this, the editor consults with the layout editor, who is also Chief of the Graphic Arts Branch, or his representative. Between them, they decide upon the type of reproduction for each illustration—line drawing, halftone, occasionally a sketch directly onto the duplimat master. They also decide the size and positioning of each illustration, mark the draft copies accordingly, and where text and illustration are to be printed on the same page, agree on the allocation of space.

Having received the author's blessing on the edited draft and planned the layout with the layout editor, the editor now submits the draft, with one copy of the illustrative material, to the appropriate Director with a request for authorization to publish. At the same time, he sends the other copy of the illustrations, marked with all changes and instructions for preparation, to the assistant editor, who now takes custody of the report and supervises its progress. He maintains the log, and transmits the orders of the editor for work on the illustrations, for covers, and for the compilation of the distribution list. Incidentally, you must visualize the flow chart as overlain with a mass of telephone wires, here removed for simplicity's sake, but nevertheless there, for frequent checking on progress, for clarifying orders, and for general liaison between those who transmit orders and those who fulfill them.

When the Director has returned the draft with authorization to publish (this is almost a formality, since the Director was already informally aware of the report and its contents), the draft is turned to the typist, who works directly under the supervision of the editor.

Here, of course, the method of reproduction will affect the work of the typist. If photo-offset is used, she will type on paper. In our office, we use multilith reproduction, with duplimat stencils. The editor outlines to the typist, who has been especially trained for this work, the exact treatment required in this particular report. If the editor and layout editor have agreed on small illustrations, interspersed throughout the report, the typist is shown exactly where these will go, how much space she has available for text, and how to place it. These pages she will type on paper, for incorporation into halftone reproduction. She is already well versed in the standard formats, the accepted spacings, capitalizing of subheads and the routine of staggering alternate pages for front-to-back printing. This close liaison and specialized training cannot be given to all typists in an installation, and it is for this reason that we do not recommend sending the draft back to the author's office for final copy preparation. We have found it impossible, under those conditions, to prepare consistent, accurate, well-typed master sheets. Even the handling and erasing of duplimat masters requires a special skill, and only close coordination between editor and typist will turn out the mats which are the basis for a neat, accurate, well-presented publication.

We recommend electric typewriters with one-use carbon ribbons or vari-typers. It is impossible to get consistent depth of color with a standard manual typewriter, because strokes cannot all be exactly even, and ribbons do fade out with use.

With the text turned over to the typist the editor is free of responsibility for 719, except for consultation with the typist and for a final review with the copy reader after the printing has been completed. The assistant editor, also, may move on to the next report, except for supervising the progress of 719 by telephone contacts as each step of its production is reported and recorded in the log.

Report 719 is now in 3 parts—the text is with the typist, who prepares and proofreads the duplimats, allowing pages or parts of pages for illustrations. When the typing is complete, the mats are sent, marked unmistakably as 719, to the reproduction shop, where they are held to be incorporated with the illustrations.

The second part of 719, the duplicate illustrations, with corrections, have gone to the Graphic Arts Branch. Here, halftone negatives of the photographs are prepared and line drawings are made from the original sketches. In both cases, legends and figure numbers are added, so that the illustrations are the right size and complete except for page numbers. These illustrations are forwarded to the Reproduction Shop, where page numbers are added by the copy reader to integrate with the typed text.

Meanwhile, for the third part of the report, the Distribution Clerk has made up a distribution list on the basis of standard requests, the author's suggestions, a knowledge of the subject matter, and therefore of those who will have a particular interest in the report. She adds a reserve number of copies to take care of future requests, and types the entire list on duplimats, which are sent to the Reproduction Shop, to be added to the other material.

While these parts of the text were being prepared, the assistant editor has ordered covers prepared by the

Reproduction Shop. If you are in private industry, you may revel in leatherette covers, gold imprints, and spiral bindings. If you are in government service, the stringent printing regulations limit you to the simplest, most utilitarian cover possible. "Neat, but not gaudy," is the by-word, and it is a real challenge to turn out attractive, eye-catching covers within the bounds of regulations. We have used both hot-press and Leroy lettering with photolith reproductions. The hot-press is more attractive, but takes more time and is more laborious with our equipment.

The covers are printed in the Reproduction Shop and laid aside, clearly marked, to be incorporated with the other parts of 719 as they come into the Shop.

When all of these operations have been completed all the text is together in the Reproduction Shop and ready for printing. The copy reader obtains the signatures of those who must authorize the report, written on the duplimat of the approval page, and checks the material for pagination, arrangement, quality of work, and to be sure that all parts of the report are ready for reproduction. When he is assured that all is in order, he reports to the editor, who orders the printing, assembly, and binding of 719.

When the printing has been completed, the reports may be assembled by any of several methods. For relatively short reports, collating boxes may be used. These are in effect a series of shelves, one above another. Each descending shelf, in order, holds all the copies of a printed page, in sequence. The worker draws one page from each shelf, in order, and stacks the assembled lot at the base of the box. The Lazy Susan, as its name implies, is a round table, pivoted, with slots around the circumference. One page is taken off the stack in each slot as the table is rotated. An adept worker can assemble an astonishing number of reports with this device, which we consider preferable to the large and very expensive mechanical collators. Until we can get our Lazy Susan, we are using the peon, or Volga Boatman, method, wherein all employees within range are drafted to march around and around tables, picking up one page from each stack of sheets, to get one assembled copy for each round trip.

The first copy of the assembled report, unbound, is carried to the editor, who reviews it one final time. If there are pages below standard, or any discrepancies apparent, those pages are recut, printed, and substituted in the assembled but unbound copies, and the copies bound.

Most of our reports are bound by stapling at the left edge, a few are saddle-stitched. On those too thick for satisfactory stapling, we punch holes and use screw-post binders. Each Reproduction Shop will have its own method of binding, dependent on volume of work, size of reports, the restrictions of cost, time, labor, and regulations.

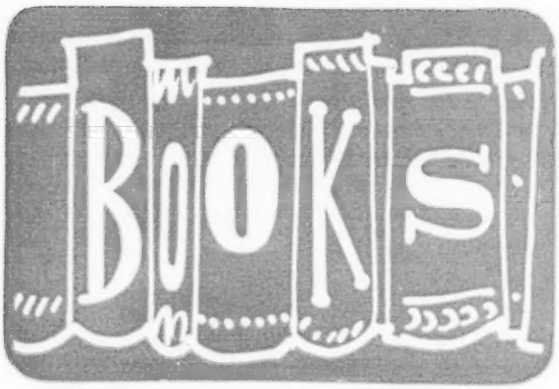
Many of you, who have no need to deal with security information, will have no interest in the next step. Those of us who must always consider security classification must follow it closely. We recommend, for the sake of simplicity, that a control or log number be assigned the report by the Distribution Clerk. This log number, or control number, is not the same as the sequential number by which the *subject matter* of the report is identified (in this case, 719). Rather, it is an identifying number for identification of the *document*. It is added, with the copy number, to all classified material, so that a proper record and cross-indexing may be maintained of its location, for security reasons. In many offices, the completed copies must be sent to a central Control Office, assigned and marked with the security log number, and returned to the Distribution Clerk. However, by assigning a distinctive log number series to be used for reports only, this extra step may be eliminated. For instance, if the standard methods of logging is 55-CD- and a sequential number, then the reports could well be logged as 55-CDR- and a sequential number. This further identification as a report log number would also simplify work at the time of reconciliation of documents.

When the reports have been properly logged for security, they are distributed according to the distribution list. File copies are sent to the Records Office and loan copies to the Library. Several copies are filed in the Distribution Office to fulfill later requests.

And there it is. It sounds simple, and looks so good on paper. But there are many kinks yet to be worked out. For instance, we cannot assign page numbers to illustrations until all text duplimats have been typed and paged. If we could evolve some system whereby we could complete the preparation of the illustrations while the text was being typed, instead of after, we would save valuable time.

The organizational unit which is responsible for technical reports is also involved in other informational activities, such as preparation of documentary motion pictures, technical training of personnel, provision of technical library facilities, and review of manuscripts for open publication in technical literature. For these reasons, the editor must always be alert for the possibilities of further use of a report—this one could be the basis for a picture script, that one might well be submitted to a technical journal, another might be incorporated into a briefing lecture.

These are the things that keep an editor alert, wide-eyed, and tuned to a fine pitch. The strain is terrific, but the satisfaction of a good report, well-presented, in the hands of the scientist who needs it, makes the job worthwhile, and is the real reason for our being here today. Ω



LET'S ALL GET ON THE BALL AND STRIKE WHILE THE IRON IS HOT

In the January issue of the STWE REVIEW there appeared a review of Cornelia and Bergen Evans' book, called "A Dictionary of Contemporary American Usage." Shortly after the issue went to press we came across another review of the same book. This review appeared in the December 5, 1957 issue of the Syracuse Daily Orange, which is the daily newspaper of Syracuse University. Through the kind permission of Miss Ann Olson, Editor-in-Chief, we are reprinting Glen Brown's review for your interest(?).

We were pleasantly surprised to learn that Random House of New York has published a book written by Cornelia and Bergen Evans, called "A Dictionary of Contemporary American Usage." This book is a herculean effort. It attempts, with untiring effort, to list and criticize American cliches.

It was with a sign of relief we learned of this publication. A book of this nature has been conspicuous by its absence. There has been a long felt need for it. Like a bolt from the blue, this writing should bring order out of chaos. Cliches have become cut and dried; they are like a drug on the market.

In this broad land of ours, cliches are used coast to coast, from Maine to California. The brother and sister team found the cliche having adverse effects on speech and writing. The authors keep abreast of the times and have given the American language an acid test.

They found cliches to be threadbare, and to fall on American conversation with dull, sickening thuds, plunging English purists to the depths of despair. They're ugly as sin.

They began their work fit as a fiddle and finished the book none the worse for wear. However, they were doomed to disappointment. As luck would have it, cliches are increasing by leaps and bounds. In America, the Evanses found the cliches growing like wildfire. The cliche is increasing at a breakneck speed.

United We Stand!

We in the newspaper field stamp out this hated enemy. We are the proud possessors of a great language. If we don't stop the cliche, our language will become as dead as a door nail. Justice must be served —let us make the cliche beat a hasty retreat.

Granted, this is easier said than done. However, if we join forces and fight with untiring effort, victory will be ours. We must work like Trojans to inform the unwashed masses of their tragic mistake. By education and example, the American public will see the error of its ways, and soon be back on the road to success. They must mend their ways.

We will fight to the bitter end. We must force the cliche to death's door. We must not give anyone the benefit of the doubt. There will be no beating around the bush. We must burn the midnight oil to nip in the bud any new cliches.

Out of all our citizens, at least the man in the street, those who do not use cliches are few and far between. We must take the public by storm, but it goes without saying, we will be at a ripe old age before victory is ours.

But when our last battle is over, and our golden sun sets in the twilight of life, we will be tired and happy to learn the opposition has been crushed. But in the meantime we must not rest on our laurels.

Last but not least, keep a stiff upper lip!

THE NEW CENTURY HANDBOOK OF ENGLISH LITERATURE. Clarence L. Barnhart, ed. 1167 pages. New York: Appleton-Century-Crofts (1956). $12.00.

Not an anthology, but rather an encyclopedia of persons, places, towns, and titles in English Literature. ". . . seeks to answer those questions about English writers, works of literature, characters from works of literature, and various related (but not necessarily English) items which are most likely to be raised by modern American readers of English literature. It is intended to add to the enjoyment of the vast number of people in every walk of life who read primarily for pleasure, and whose reading tastes have been influenced by college courses in literature. Students, teachers, editors, writers, librarians, lawyers, and clergymen who want to check a literary allusion or confirm a reference will find it a rewarding source of information.

"The . . . Handbook . . . opens doors to new reading pleasure for the casual reader. For the professional user it offers a quantity and variety of information now available in no other single work."

The contents of the book are conveniently arranged in one alphabet, saving the endless hunting necessary in so many other books of its kind. Cross-references are generous. Every word, with the exception of a few very common nouns, is respelled phonetically, using the same key found in the New Century Dictionary.

This appears to be one of the best references of its kind that has been published in two or three decades.

R. M. Stern

FASTENERS HANDBOOK. **Julius Soled. 430 Pages. New York: Reinhold Publishing Corp. (1957). $12.50.**

During the past decade, the rapid pace of fastener development has left the recorded information on the subject far behind. This handbook meets, for the first time, the tremendous need for a reliable, complete, current, and authoritative reference to fasteners and fastener resources.

The coverage is unusually complete, accurate, and up-to-date. It covers standard and proprietary fasteners from all manufacturers, including the many specialized fasteners developed since World War II; specific fasteners that increase structural reliability and safety; and the whole range of sizes and types of materials available.

Each fastener is discussed on a separate page which includes an illustration and paragraphs headed: Description, Features, Use, Standard Materials, Standard Sizes, Remarks, and Manufacturers. Every description of a proprietary fastener has been verified by its manufacturer.

All major manufacturers and most smaller ones, as well as industry associations, such as the Fasteners Institute and the Screw Bureaus, have contributed material.

The 12 types of fasteners treated are: Rivets; Inserts; Screws, Bolts, Studs; Nuts; Washers; Retaining Pins; Pins; Nails; Metal Stitching; Quick Release Fasteners; Masonry Anchoring Devices; Hose Clamps. A directory of 304 manufacturers is included.

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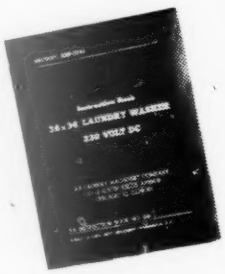

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The book came to be written as a result of the author's own search for published information on fasteners. In connection with his work as a design engineer for the Army Signal Engineering Laboratories at Ft. Monmouth, he found only out-of-date and poor or unorganized material. One thing led to another, as it does so often, and this book is the result.

It is a fastenating (no apology to Bennett Cerf) volume.

R. M. Stern

RECENT ADVANCES IN SCIENCE: PHYSICS AND APPLIED MATHEMATICS. **Morris H. Shamos and George M. Murphy, eds. 384 pages. New York: New York University Press; distributed by Interscience Publishers (1956). $7.50.**

Early in World War I, if rumor be true, an offer of aid from the American Chemical Society was politely declined by the then War Department. Reason, the Department already had a chemist thinking about their problems.

Little significant advance took place during the ensuing 15 years. During the most recent 15- or 16-year period, however, tremendous strides have been made—virtually a technological revolution has taken place—in a relatively short span of time.

With this development there has grown—logarithmically, perhaps—a parallel problem. It has now reached major proportions and threatens to stem the tide of the necessary flow of knowledge: How is it possible to keep abreast of developments in one's own field, as well as being aware, if only through mental osmosis, of developments in peripheral realms? The end is not yet . . . Each expert speaks a language probably meaningful to the few who are likewise expert in that field. But could not the engineer, chemist, or solid-state physicist profit significantly from a knowledge of the work done by the mathematician or the nuclear physicist? Is there a common methodology that would bear fruit in all of the physical sciences?

It is eminently clear that an educational and training need exists. To meet the need, NYU, with the cooperation of industrial scientific leaders and Government laboratories, developed a series of coordinated lectures by the outstanding men in scientific fields of current interest to industry, research laboratories, and the universities.

These lectures became the First Symposium on Recent Advances in Science, held at NYU in mid-1954, and their content comprises the body of this book. The level may be described as intermediate; that is, the reader is assumed to have some scientific background or training, although not necessarily in the particular subjects covered. Some of the latter are: operation research, cryogenics, microwave spectroscopy, transistor physics, and ferromagnetism.

R. M. Stern

AIRCRAFT MECHANIC'S POCKET MANUAL. **Joseph A. Ashkouti. Fifth edition. 187 pages. New York: Pitman Publishing Corp. (1957). $3.75.**

The author has collected into a handy, spiral-bound leatherette cover a wealth of standard data on materials, processes, sizes, dimensions, etc. It should be useful to many in fields other than aviation.

The table of contents (which, in the book is called the index), shows listings for 13 sections. They are: aircraft identification standards; layout methods; shop arithmetic; flat pattern layout; materials of construction; standard aircraft finishes; Air Force-Navy standard parts; screw and pipe threads; drilled and reamed holes; tools; nomenclature; stress fundamentals for structural repairs; processes for fabrication of plastic parts.

R. M. Stern

DOLLAR SAVINGS THROUGH STANDARDS. **American Standards Association. 40 pages. New York: American Standards Association (1956). Free on request.**

A foreword discusses the philosophy and creation of standards, and the development, through several editions, of this booklet. The bulk of the publication consists of case histories of the before-and-after type in 27 different types of industries. The problems are described, and the advantages gained after standardization was instituted.

R. M. Stern

NEWS AND VIEWS

(Continued from page 15)

TOP MANAGEMENT SURVEYED ON RESEARCH LAB REPORT IMPROVEMENTS

From S. Hubelbank, President of the STWE Connecticut Chapter, we received word of a study entitled, "America's Top Management Suggests Improved Methods of Communciations Between Research Laboratories and Executive Offices." This study was conducted as a public service by the *Scientific Apparatus Makers Association* laboratory and optical sections' public information committee during September 1957.

Comments and reactions from 34 different kinds of manufacturing industries are reported in the survey ranging from makers of cosmetics, basic steel producers, and petroleum refiners, to textile, air-conditioning, and industrial instrument companies.

Survey respondents were about even in reporting the use of one research report for all major operating department heads in sales, finance, advertising, etc. in contrast to variations of one report prepared especially for various company division executives.

Most executives surveyed agreed that research and development laboratory reports could be much more useful to them if more frequent reports were made. They also called for improvement in the quality of reporting, both oral and written. They suggested more discussions between scientists and management, study groups, meetings, etc.

Copies of the appartus makers' survey findings are available without charge. Requests should be addressed to: Research Reports, Scientific Apparatus Makers Association, 20 No. Wacker Drive, Chicago 6, Illinois.

SPECIAL LIBRARIANS AND TECHNICAL WRITERS

The January 1958 issue of *Special Libraries,* the journal of the Special Libraries Association, was devoted almost entirely to the subject "SPECIAL LIBRARIANS AND TECHNICALS WRITERS — How They Can Assist and Complement Each Other."

This special issue contains three papers which were presented before the Metals Division at the Special Libraries Association convention in Boston last May (the fourth paper by Robert R. Rathbone appeared in the January issue of STWE REVIEW). Also included is the talk given by Katharine Kinder at the TWE-STW meeting in New York in November 1956.

Single copies of the issue may be had by writing: SPECIAL LIBRARIES, 31 East 10 Street, New York 3, N. Y., and enclosing seventy-five (75) cents for each copy.

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TECHNICAL WRITING AND EDITING CURRICULUM AT C.I.T.

John C. Warner, President of the Carnegie Institute of Technology, announced on January 30 a new curriculum in Technical Writing and Editing for women. The first of its kind to be given in the Pittsburgh area, the new four year program will be an option in the Department of General Studies of Margaret Morrison Carnegie College for women. It will consist largely of work in three main areas—basic science and mathematics; English language, writing, and literature; and social sciences and the arts—with additional courses in Graphic Art Processes, Layout & Design, Typewriting, and Technical Research & Report Writing. The latter will be a newly-created course, with the others already existing in the programs of Carnegie's various schools.

The Technical Writing and Editing Program will provide opportunity for women who like the scientific fields and want to work in them, but for various reasons do not want to enter science and engineering programs which are designed primarily for men. It will not be merely a standard science curriculum with writing courses added. Its graduates will not be engineers or scientists, and will not be expected regularly to produce material at the technical level of, for instance, an engineer's report. The program is aimed rather toward an entirely new field which is fast gaining professional stature. The field which is peopled by individuals who are not engineers and scientists but who have enough training in both basic science and writing that they may relieve more highly skilled workers of the heavy writing burden.

BIBLIOGRAPHY OF TECHNICAL WRITING

The Central New York Chapter of STWE has copies of a *Bibliography of Technical Writing and Related Subjects* which it is making available to STWE members and other interested people. This bibliography was prepared by Pauline Smorol, Barbara Sweet and Allan Lytel. Both Miss Sweet and Mr. Lytel are members of the Chapter. Books published, up until January 1958, about the technical writing and related fields are listed according to subject matter in this bibliography. The subjects include abbreviations, advertising, copy fitting, copyrights, editing, use of English, illustrations, layouts, printing, proofreading, publicity, publishing of books, magazines and newspapers, speech, statistics, style guides, type, and writing.

Copies of the bibliography may be obtained from Mr. Dana Brown, General Electric Company, Building 7, Room 148, Electronics Park, Syracuse, New York. The Chapter is asking that requests be accompanied by a remittance of one dollar ($1) per copy. The remittance will help defray the cost of printing, and finance the Chapter's project for this year. The objectives of this project are to: 1. Establish a focal point for factual

material essential to the establishing of a degree course in technical writing; 2. Establish a tool (in the form of a mobile display) to create interest in high school and college students; 3. Establish a tool to create interest in STWE by Industries and Professions; and 4. Illustrate this project at a display booth at the 1958 STWE National Convention. The Chapter feels that this project will spearhead the National Education Program as outlined by Irving Jenks.

CONFERENCE ON SCIENTIFIC EDITORIAL PROBLEMS

From Jacques Harlow, President of the Fort Wayne Chapter of STWE, we received word of the American Association for the Advancement of Science's Sixth Conference on Scientific Editorial Problems. This conference dealt with the correlation and dissemination of scientific information, scientific translations, technical editing, and science and the mass media.

Irving Jenks, President of STWE, spoke on the "Functions and Status of Technical Writers and Editors in Industry Today." Other speakers included: W. Earl Britton, Professor of English, University of Michigan; R. G. Chollar, Vice President for Research, National Cash Register Company; Andrew W. Bluemle, Editor, Institute for Cooperative Research, University of Pennsylvania.

More and more professional organizations are becoming increasingly aware of this technical writing and editing field. They are even establishing groups in this field in their own organizations: witness the I.R.E., mentioned in the January issue of the REVIEW, and this conference of the A.A.A.S. We are happy to see that STWE members are supporting these groups.

H. C. McDaniel, Chairman
1958 Convention Committee
Director, Technical Information
Westinghouse Electric Corporation
P.O. Box 2278
Pittsburgh 30, Pa.

Below are two or three topics on which I need information and which I would like to hear discussed at the 1958 National Convention in Washington, D.C., in November.

A .....
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City ..... Zone ..... State .....

Please clip and send this form with your comments to H. C. McDaniel.

LETTERS

(Continued from page 2)

February 25, 1958

Dear Mr. Lytel:

We in the Technical Publications section at Alco Products, Inc. have received two inquiries about vacancies for technical writers which I believe were initiated by the "help wanted" section of the January 1958 issue of the STWE Review. I would like to suggest that in the next issue you publish a small note to the effect that the "help wanted" section was merely an attempt to interest people in chapter activities. It is unfortunate that this section appears to be misleading some technical writing job applicants, but nevertheless, you are to be commended for the fine job that you are doing with the STWE Review. Keep up the good work.

Very truly yours,
C. M. Trimmer, Manager
Technical Publications
Alco Products, Incorporated
Schenectady, New York

February 21, 1958

Dear Mr. Lytel:

Irv Jenks stopped in Chicago last Wednesday. Talking to him opened my eyes to what was going on relative to STWE and its publications. His opinion and the rave notices he quoted regarding the January *Review* sent me back to my office to read the Review . . . You did a terrific job on this *STWE Review* in spite of your membership in the "I'm too busy Club".

Your very truly,
Ernestine B. Kohn
ROSERN Publications & Procedures
Chicago, Ill.

February 15, 1958

Dear Mr. Hanousek:

Thanks for your letter of January 28 and for the advance copy of STWE REVIEW.

You certainly did a grand job on that issue, and naturally I am delighted that you saw fit to include my modest story.

Your own contribution — News and Views — is exceptionally well done, and most interesting.

My warm congratulations to you and all the others who had anything to do with this fine issue.

Very sincerely yours,
Tracy W. Simpson
Berkeley, Calif.

7 February 1958

Sir:

The Library has received and recorded (your) publication . . .

We shall deeply appreciate your continuing to make this publication available to the Library of Congress.

Sincerely yours,
Alton H. Keller, Chief
Exchange and Gift Div.
Library of Congress

December 17, 1957

Dear Mr. Lytel:

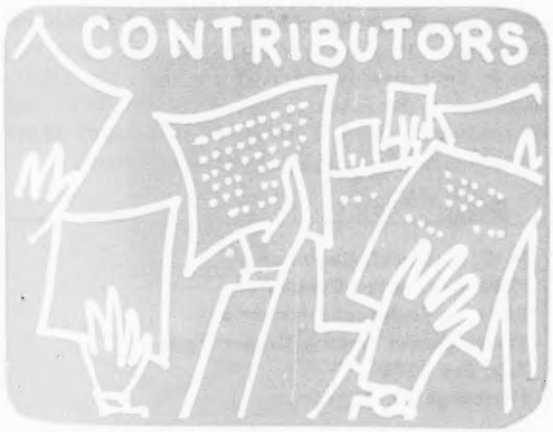
Please advise how the Jackson Lab. Library may obtain regularly "THE TECHNICAL WRITER"; which is published jointly by the Society of Technical Writers and the Association of Technical Writers and Editors.

Thank you for a prompt reply.

(Mrs.) Alma S. Brennan
E.I. DU PONT DE NEMOURS & CO.
Wilmington, Delaware

Thank you for your request; the Technical Writer *is now the* STWE Review *and it will be issued four times a year.*

Subscriptions are available from Mr. T. R. O'Neill, 216 President Street, Passaic, New Jersey.—Ed.



ETHALINE CORTELYOU (Some Qualifications of a Technical Editor) is a Literary Analyst at the Armour Research Foundation, Illinois Institute of Technology, Chicago, Illinois, and a member of STWE. This article was adapted from a paper read at the American Documentation Institute Meeting, November 4, 1954, Cleveland, Ohio.

D. R. McDOWELL (Standardization of IRBM/ICBM Technical Manuals) is Manager of Technical Services, Space Technology Laboratories, a division of the Ramo-Wooldridge Corporation, Los Angeles, California. This article was presented as a paper at the Eighth National Convention on Standards, sponsored by the American Standards Association in San Francisco, November 13-15, 1957.

C. A. CHURCH (You Can Communicate More Skillfully) is Manager of the Communication Component, Engineering Services, General Electric Company, New York City. This article appeared in the September 1957 issue of the *General Electric REVIEW*.

MADELINE D. WARNOCK & DONALD N. MELDRUM (Mass Production of the Technical Report) presented this paper at the May 13, 1955 meeting of the Association of Technical Writers and Editors in New York City. Mrs. Warnock and Mr. Meldrum retain positions as editors at Fort Detrick in Maryland. Madeline is a member of STWE, and has served on TWE's Education and Standards Committee.

TOM GROGAN

(Continued from page 3)

The McGraw-Hill Technical Writing Service provides a writing, editing, illustrating, and production service under contract to clients. Tom is responsible for coordinating sales planning, supervising and negotiation of contracts, assigning staff members to projects, following up on project progress, final review of all material prior to delivery, and hiring and firing of personnel; in short, for all things that must be done to get new business, and get the work done within predetermined limits of quality, cost and schedules.

He has been active in STWE; Tom attended the initial meetings leading to the formation of the New York Chapter STW; he was Chairman of the Bylaws Committee, New York Chapter, STW, 1955; member of the National Nominating Committee, STW, 1954-55; Chairman of the National Nominating Committee, STW, 1955-56; member of the Executive Board, New York Chapter, STW, 1956-57; Joint Chairman of New York Chapter, STW-TWE Merger Committee, 1957. Presently he is Vice-President and Chairman of Publications Committee, STWE.

Tom's home, near Huntington, Long Island, has recently acquired its first addition, Tom III. Congratulations.

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A NOTE TO CONTRIBUTORS

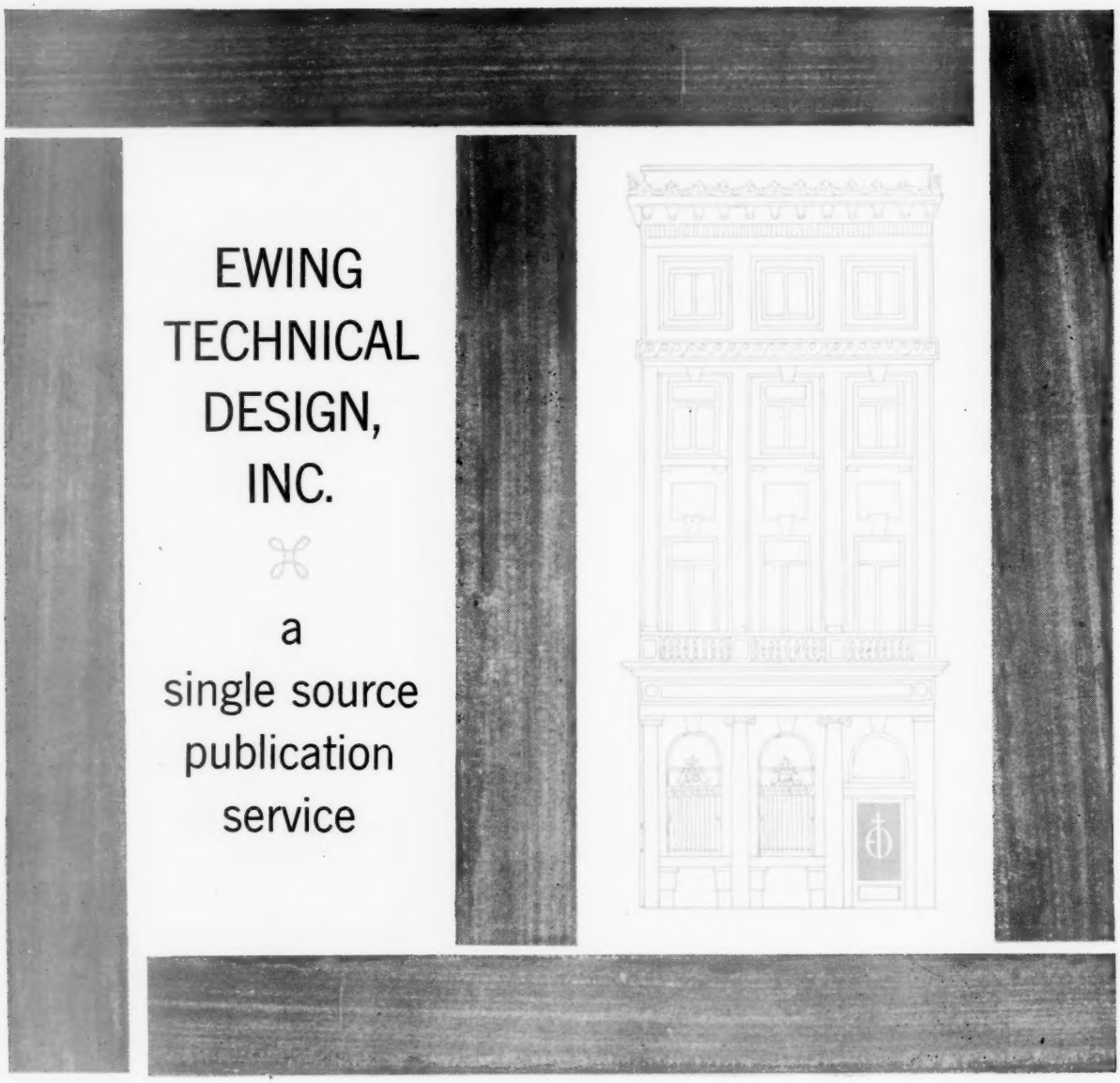
Contributions to this Journal are always welcome; short articles of 500 to 1000 words are most easily fitted into our small magazine.

Send the original on heavy white bond paper, typewritten, double or triple-spaced, plus two carbons. Leave at least a one-inch margin on all sides, number the pages consecutively, and be sure that all illustrations are keyed in with the text.

Articles should not exceed 2,500 words plus three illustrations.

We assume that every article has been approved by your company before it is submitted. The authors' names and affiliations should be on the manuscript. A picture of the author (8 x 10) and a short biographical note are most helpful. This note should include the present title of the author, the full name of his organization and complete information about books, other articles or any other publication credits.

Please address all contributions to the editor; the review committee will read your article and our publication plans will depend on their collective judgment.



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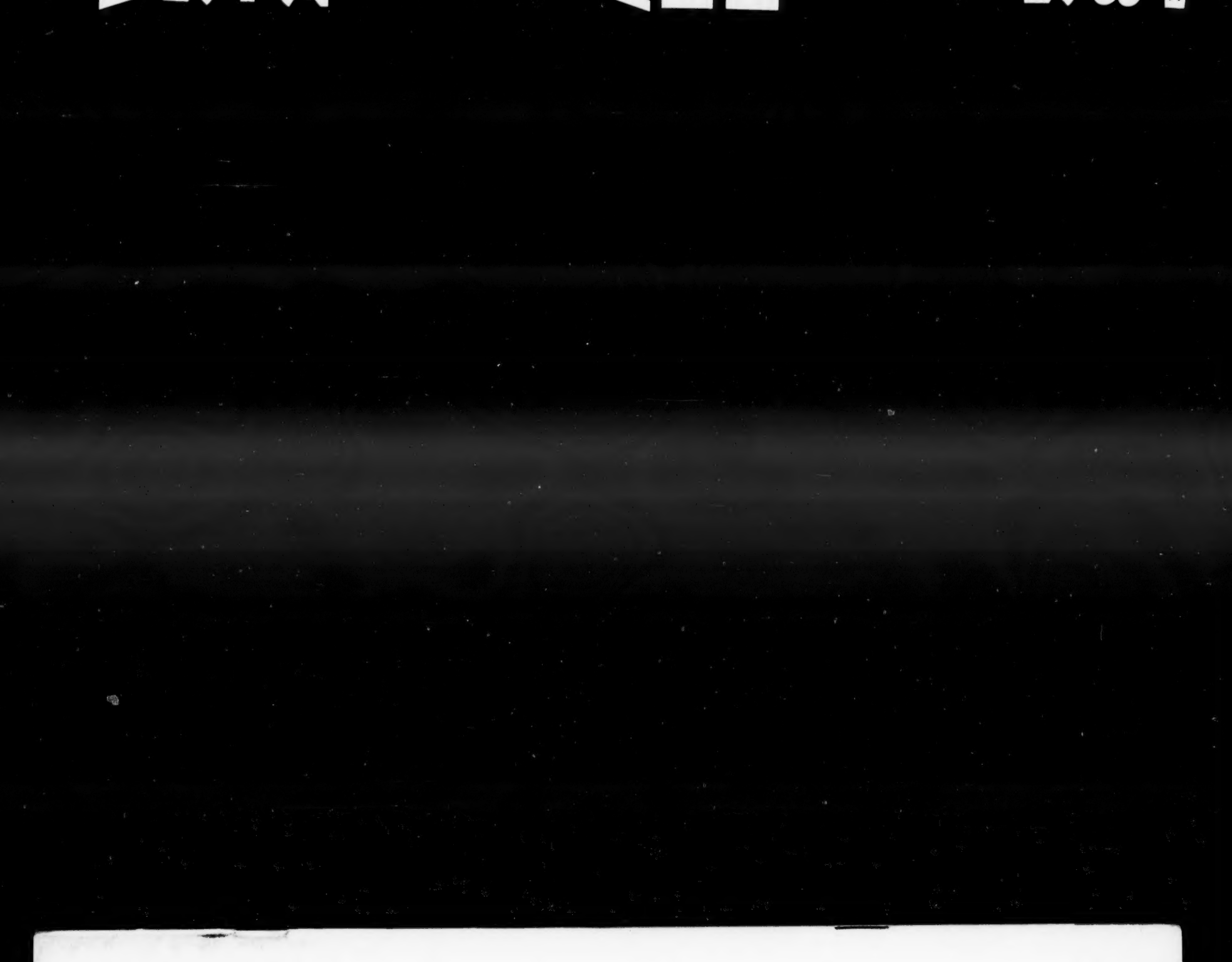
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